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Daniel Turner
of the College of Physicians LONDON.

46774

THE ART OF SURGERY:

In which is laid down

Such a general IDEA of the same, as is
founded upon REASON, confirm'd by
PRACTICE, and farther illustrated
with many *singular* and *rare Cases* ME-
DICO-CHIRURGICAL.

In Two VOLUMES.

WITH AN
Introductory INDEX,
SHEWING

The CONTENTS of each, and a double
TABLE at the Close: The former *Historical*,
referring to the *Cases*: The latter *Ætiological*,
explaining of hard *Words* interspersed in the
several PARTS.

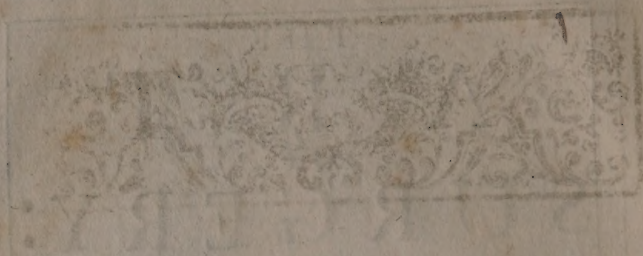
By DANIEL TURNER, of the College
of Physicians in *London*.

Ὁ Βίβλος Βραχὺς, ἢ ἡ Τέχνη μακρὰ, ὁ δὲ καιρὸς
ὀξύς, ἢ ἡ πείρα σφαλερὴ, ἢ ἡ κρίσις χαλεπή.

Hippoc. pars primi Aphor.

VOL. I.

LONDON: Printed for C. RIVINGTON in St. Paul's Church-
Yard; J. LACY between the Temple Gates in *Fleetstreet*; and
J. CLARKE at the *Bible* under the *Royal Exchange*. 1722.



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T O

Dr. *THOMAS CROW*,

Fellow of the Royal College
of Physicians in *London*.

S I R,



THE more frequent *Consultations* I have had with you in the Way of our *Profession*, than with other Gentlemen of the same *Faculty*, many of whom too I shall always honour and respect, having

A 2

given

The Epistle Dedicatory.

given me a thorough Knowledge of your excellent *Endowments*, 'tis less Wonder I should chuse you therefore as a *Patron*; and under a Name so unexceptionable, usher the following Sheets into the World; declaring solemnly at the same Time, that in my Acquaintance therewith, I have not found a stricter *Probity*, greater *Candour*, and more *Humanity* than I have met with in your Self: Or a Person so entirely free of the *haughty*, *supercilious*, or *magisterial* and *petulant* Carriage of some, or of those *squint* and *side Reflections*, with the little Arts of *Insinuation*, called *Managery*, too often practis'd by others, with a mean and pitiful View, thereby to establish themselves, and supplant their Equals, if not their Betters.

But

The Epistle Dedicatory.

But should I pursue this *Topick* farther, I know I should offend you, as to have said less in your Commendation would be a Wrong to Truth.

I am sorry to say indeed, that I have even heard of the *Deportment* I have now mention'd, among Gentlemen whose Education has given them much greater Advantages, than many others have had the Opportunity of acquiring: But so it happens, as if we of this latter Age were fallen upon the very *Dregs* of Time, and that *Honour*, *Justice*, and almost every Thing *Commendable* and *Praise-worthy*, had forsaken us: Witness the horrid and most dismal Calamity so lately brought upon us all in general, by the base and *sinister Practice*, the vile *Ava-*

The Epistle Dedicatory.

rice and subtle Artifice of Men, not only in the *middle Sphere*, but some of them, in *high Stations* among us: So that certainly at this Juncture, if ever, a Man of *standard Honesty*, or one of that unblemish'd Conduct with your Self, cannot be too highly valued, cannot be too much esteem'd. And if indeed at some Times, through the Want of these, I have at leisure Hours chose rather to converse with Books than Men [which I know has been objected as my Fault] I have not yet seen Cause to repent of my so doing; having often found verified, what our Predecessor *Sydenham* some Years ago remark'd, in his *Epistle to Dr. Paman*, That as an Acquaintance with Men remarkable for their *Integrity* and other *Virtues*, has brought

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brought to me some certain and durable Emolument of one Kind or other, so the Friendship I have hapned at any Time to maintain with loose and *immoral* ones, however my present Interest might be thereby promoted, yet was it ever attended with Anxiety of Mind, or Perturbation.

For truly, Sir, to make you my *Confessor* ; and where shall I find a better ? Tho' I have studied *Physic* pretty closely for more than fifteen Years past, yet I must own not to that Degree, as to fancy my self an *Independent* Being, or that I have nothing in my Composition that must account in another State, for what I act in this. If such there are among us, as that common Charge against the Profession,

A 4 would

The Epistle Dedicatory.

would imply, be it to themselves :
Let them look to it, whilst you
and I, Sir, observe that princely
Apothegm, the Sum of *Ethics*, to
keep our *Innocency*, and observe to do
the Thing which is right, for that will
bring us Peace at the last.

Wishing you that *Peace* you have
so just a Title to, with all its At-
tendants, I shall take the Liberty
to subscribe my Self,

S I R,

Your real Friend,

Your very much obliged,

Very humble Servant,

Devonshire-Square,
without Bishopf-
gate, this 25th of
June 1722.

DANIEL TURNER.



TO THE
READER.



Have at some Times thought it strange, that a Country so remarkable for Men eminent in the Practice of this noble Art, of which we are about to treat, affords us so few good Authors as our own : Or that there should be found so great a Scarcity of faithful judicious Writers, where there is so great a Number of excellent Practitioners.

Those antient Masters, Clowes, Banister, and Woodall, in the Beginning of the last Century, and Dr. Read with Mr. Wiseman, in the latter Part, being the chief, or I think setting aside some few of less Regard, the only general Benefactors to their Posterity, in transmitting their chyrurgic Observations.

*The former in their Time, and some While after, were in good Esteem ; but lately of very little, I might say, no Account : So that the two last are now the Principal we can boast of ; and of these surely Mr. Wiseman's Chirurgical Treatises bid the fairest for a compleat History of the Art :
Since*

The P R E F A C E.

Since the Doctor, how learnedly and accurately soever he has gone through his Account of Tumours, Ulcers, and Wounds, yet lived not as I can understand to proceed, at leastwise himself never publish'd any, either of Fractures or Dislocations.

Nor has Mr. Serjeant Wiseman escap'd the severe Censure, I cannot say so much of Male-Practice, as Male-Representation of some practical Cases. I wish however those Gentlemen, who have thus reflected upon that industrious Author, had taken half the Pains which he has done, for the Improvement of the younger Part of the Fraternity educated therein.

Yet notwithstanding his judicious Performance, which hath met with so general Approbation, and so universal Reception as well here at Home, as in the Plantations Abroad, it must be granted there is Room still left for others, who shall come after, to make farther Improvement.

Our Neighbours the French have been this Way more laborious, and from them we have of late Years borrow'd some useful Treatises, particularly one of Chirurgical Operations by Monsieur Vaughion.

About the same Time were likewise publish'd certain other Translations from Charrier, Bellost, with Le Clerc's Compleat Surgeon, so call'd, but which I can by no Means think comes up to the Title.

I must own also that our Physicians have been more sedulous in their Province: For tho' but few have encounter'd the Universa Medicina, as did
many

THE PREFACE.

many of the Antients, yet by singling out the several Diseases, each one, or more to his Share, I believe without Vanity I may say, we are able to furnish as rational an Idea of Physic, meaning Medicine, as any Part of Europe.

And why our Surgeons should come behind-hand, I cannot see, well knowing many of that Profession so truly qualified with every Thing except Leisure, and some few, I fear, Inclination, for so serviceable an Undertaking.

If then in this Scarcity of sound English Authors, I have adventur'd to publish these general Memoirs of my own Practice for several Years past, whilst a Member of the same, with some farther Observations, where I have been call'd of late Years into Consultation, I hope it may not be ill taken: Since by the Addition of these last more especially, it will be found, if I mistake not, the most instructive Body of chirurgic Practice that has yet been printed in our own Tongue: And, I am sure, the most useful to the Country Practitioners, or those in other Parts, where the Physician's Assistance is not to be had.

Which I have hinted the rather, to obviate an Objection, that Empiricism may be thereby encourag'd; but of which, as no fair Practitioner here in Town, can, or will, surely make a Handle, so ought not others, where his Assistance is not to be had, to be denied the Use of any Means whatever, conducive to the Patient's Cure.

For it is certainly the Duty of every just and good Man, as a very worthy and pains-taking One this Way has observ'd before me, to account no other-

The P R E F A C E.

otherwise of himself, than as a Part only of the common human Nature, and by all the Ways he can, contribute to the Welfare of the Whole.

He who acts upon any other Principle, acts indeed as if he thought his Knowledge given him for his own Use only; which having done with, the same, without Injustice to his Posterity, may be inter'd with his Remains.

But such [the greater Pity surely and Misfortune to us] has been the Humour more peculiarly of the present Age, that however wanting we have been of honest, learned, and judicious Writers, we abound however with our Critics, whose Employment lies in hunting for, and spying out the little Slips, and very excusable Over-sights of an Author; whilst over-looking any Advantage that may be gained by his Labours in general to the Public, nor yet daring to let the World see any Thing of their own that might better supply the Place, expose him all they can to Ridicule and Contempt: Which ungentleman-like Usage, has doubtless deter'd some Persons well qualified for serving their Profession, and render'd them more shy of this communicative Knowledge than otherwise they might have been.

For my own Part, I am too well appris'd of the Nature of Criticism, and the remarkable Talent of some People exercised this Way, to believe I can write any Thing that shall escape their Censure: I could only wish methinks, that no Man might have the Liberty of thus finding Fault, who had not himself been first made free of the Press, it being certainly much easier to criticise upon a very good Book, than to write one however more indifferent.

I men-

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I mention this the rather, having experienced some little Share of this Detraction. My remarkable Case in Surgery, has been deem'd a common Case, by some of these Gentlemen: My Treatise De Morbis Cutaneis, a labour'd Piece indeed, but Immethodical, because, as is reported, I have reckon'd a Clap among the Skin-Diseases: And this pitiful Reflection I suppose is cast, for that in treating of the Phimosis, Periphimosis, and Chrystaline, among those incident to that of the Præpuce, I had casually touch'd upon their Cause, the virulent Gonorrhæa, and given an Instance in a Case extraordinary, if such may be allow'd met withal by any but themselves, of that Nature. My Siphylis stood the Test it seems a little better; yet rather than it should entirely escape, I was inform'd some Time after, it had been more sound, had I propos'd in the Beginning of the first Infection, to have purged with Lenients, such as Cassia, Elect. Lenitiv. the Waters, and the like, in Place of the more hot and stimulating Cathartics: Which Animadversion I thought I had also render'd useles, by acquainting the young Surgeon, as is, there evident, that the Medicaments of this Class are always to be suited to the Patient's particular Temperament or Constitution: And thus I told him, or to the same Effect, tho' the Diagrediat or Scammoniat might well enough agree with the cold and phlegmatic, yet the Rhabarbarate, with other gentle Purgation, were better adapted to the hot and hectical. Sed

Quid non Invidia potuit —————

But leaving now these foul Dealers, to consider whether or no they act herein by that golden Rule,
of

The PREFACE.

of doing as they would have others do unto them, and passing by the Treatment I have met with from some few of these Zoilists, I can say, I have had better Amends made me, for the Pains I have taken to serve the Profession, according to my Abilities, by the Thanks I have receiv'd from sundry worthy Persons here in Town, as well as from diverse Parts of the Kingdom, for those two last Tracts more particularly, which I just now mention'd, with the most earnest Solicitation that I would hasten the following [in one of them made Mention of] to the Press; nor doubting but they should find the Contents answerable to their Expectation, as the Publication of those Treatises have been to my Book-sellers; which is indeed the more remarkable, at a Time when so many knavish Impostors are pirating of Books, plundering their Authors, and with borrowed Plumes strutting out themselves, plaguing the Town with their repeated Advertisements, in order to get them off, together with the Quack-Remedies they vend, to the great Danger and frequent Ruin of the Incautelous.

But to keep the Reader no longer in Suspense, I shall without making Apology for the Performance, only farther inform him, that the following Discourse [the greater Part I mean] having lain by for several Years past, undigested, and some of it unconnected, in loose Papers, had in all Likelihood so continued, whilst I was engaged in that very toilsome Profession, till meeting with more Leisure at my first Admittance, as a Licentiate of the College of Physicians; at spare Hours I put them into a little better Order, adding some later Observations; with Historical Cases; and believing they might be of Service to such as have been tolerably grounded in the same Art [for as I pretend

The PREFACE.

tend not to instruct the finish'd Surgeon, so neither to initiate mere Tyro's] I have consented to their Publication, tho' not in the Way at first intended, which was that of Lecture, after Dr. Read's Method; yet divided into Sections, with the Stile continued as if deliver'd in a public Audience; for the Accuracy or Exactness of which, altho' I cannot perhaps answer, yet will I for the Truth of Facts here stated, as I hope I may also for the Congruity of Practice observ'd throughout the whole.

I cannot say but I have perused Authors, both antient as well as modern, who have written upon our Subject: But without any Design, as I think will appear evident in the Work it self, of compiling a Treatise out of their Labours; a Method taken up by Quacks, and which I think the grossest Imposition that can be put upon a common Reader: Nor have I advanced any thing in Practice, but what is well grounded upon a multiplied Experience, and which will stand the Test, I dare say, of future Ages. New Systems may arise, and new Hypotheses or Theories be advanced, which meet commonly the Fate, and that deservedly very often, not to survive their Founders; whilst others taking Place, reign too in their Turns, till somewhat still more Novel is trump upon us. But as he who pursues Nature only, without regarding either, in his Medicinal Disquisitions, makes certainly, I cannot say always the most popular, but the most useful Physician: So he who builds his Chyrurgic Practice, upon a long Series of Experiments, and has the same confirmed by the concurring Approbation of the most eminent Artists, is not only less liable to be deceived himself, but certainly I may farther alledge, less likely also to impose on others.

Such

The PREFACE.

Such do I esteem indeed the Value of a Limb, and much more that of a Man's Life, too frequently depending upon the artificial or ignorant Management of Hurt's incident thereunto, that so far as I can enter my own Thoughts, could I believe that any thing I had therein laid down, would be a Means of leading the young Practitioner into any Error, I would have been so far from recommending the Publication of these Memoirs, that my self, if I may be credited, would have been the first should have suppress'd them.

*This premis'd, I take my Leave, with a hearty
Utinam*

*Quod floreat Ars chirurgica,
Floreatque ejusdem peritissimi Professores.*



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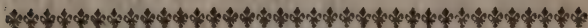
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Notwithstanding the Author's Supervisal of the Proof Sheets, through Inadvertency of those at the Press, some Mistakes, [chiefly literal] with false Pointing, have escaped: The principal of which may be corrected thus,

PAge 15. Line 32. for ζ II. read ζ β. p. 18. l. 7. *Coquitur*, r. *Coq^r*. p. 22. l. 4. r. *disjoined*. p. 31. l. 31. r. *venasection*. p. 36. l. 16. for *hor*. r. *flor*. *ibid*. l. 22. r. ζ ij. p. 45. l. 28. r. *Diagnostics*. p. 46. l. 11. r. *fracture*. *ibid*. l. penult. r. *Sambuci preparata*. p. 47. l. 16. for 4. r. *f*. *ibid*. 29. r. *Diaprun*. p. 51. l. 16. r. *Rhabarb*. p. 83. l. 15. r. *venetia*. p. 90. l. 9. for *She* r. *He*. p. 91. Sect. 2. l. 12. r. *per Se*, *h. S.* p. 119. l. 11. r. *inconsiderately*. *ibid*. l. 30. r. *Decoctum*. p. 128. l. 5. r. *Oxyrhodine*. p. 156. l. 22. r. *Padarthrocace*. p. 159. l. 6. leave out *Who*. Sect. 3. p. 171. l. 28. r. *Cystes*. p. 196. l. penult. r. *Fuleps*. p. 218. l. 13. leave out *In*. p. 221. l. 30. r. *anthos*. p. 246. l. 25. for *Tyr*. r. *Syr*. Sect. 4. p. 300. l. *ultima*, r. *leporini*. p. 301. l. 21. r. *Menstruum*. p. 316. l. 24. r. *Melissa*. p. 333. l. 19. r. *acquainting*. p. 337. l. 30. r. *effect-ed*. p. 402. l. 13. r. *Perinaum*. p. 405. l. 14. r. *Vitriol*. p. 406. l. 2. r. *Colature*. p. 430. l. 4. r. *tigher*. p. 454. l. 24. dele *Being*.

SECT.



THE
ART
OF
SURGERY.

SECT. I.



INTEND not, Gentlemen, to spend your Time in any Harangue upon the *Antiquity*, the *Excellency*, or the *Usefulness* of this Noble Art, which I have observed in another Place : but shall proceed immediately to take

Notice of those Disorders of the human Body which require its Help ; and these are, [speaking generally] reducible to the subsequent Heads, viz. of *Tumors*, *Wounds*, *Ulcers*,
Vol. I. B Contu-

Contusions, Fractures and Dislocations. We will begin with the first.

Of TUMOURS in general.

*Tumour
defined.*

This Word *Tumour*, from its Derivative *Tumeo*, to swell or puff up, implying any preternatural Rising, Fulness, or Distention of any Part of our Bodies, beyond their proper and usual Dimensions; the Eye also discovering frequently what falls under this Denomination; there needs, I think, no other general Definition; so that having touch'd upon their common Causes, we shall come to their Division.

If it be objected, That there are *Tumours* of the internal Parts, and consequently not obvious to Sight: I answer, That these fall more directly to the Province of Physic, and hold in other Respects with our general Description.

Causes.

Nor shall I trouble you with any unnecessary Detail of those *Causes*, which I reckon either *External*, such are *Punctures, Wounds, Contusions, Fractures, straight Ligature*, with whatever may occasion a Disturbance to the Part, or compress the Vessels round about: Or *Internal*, from some particular Disorder of the Fluids circulating in the said Vessels, whether arising from *Plethora*, that is, a Fulness, or *Cacochymia*, i. e. some ill Quality of the Juices of the Blood; or, lastly, from some Fault in the Vessels themselves, which convey those Juices.

These we call the *antecedent Causes*, but the *conjunct* or more immediate, are always some Obstruction.

We

Sect. I. Of Tumours in general.

§

We now proceed to their Division, and the Manner of their Production.

Of *Tumours*, 'tis plain there are more Kinds Division of than one: They are generally divided into *Hu-Tumours*, *moral* and *Flatulent*; which I think a better Distinction than that of those who difference them as *Tumours cum*, & *sine Materia*: an Absurdity in *terminis*, as putting an Effect without a Cause. For doubtless an *Emphysema*, or a flatulent one, is a material *Tumour*; tho' its Contents are more subtil and impalpable than the others.

In the manner of their Production, they are differenced; as *Tumours* by *Fluxion*, and *Tumours* by *Congestion*; altho' in both, I conceive the Efficient to be the same: I mean, an Obstruction of the *Tubuli* or small Pipes, from their stagnant Juices; which, by some proper *Dyscracy* of their own, are rendred liable to stop up the Passages, as we observ'd but now, or by some outward Compression intercepted therein.

From either of these Causes, there must necessarily result a retarded Motion, if not an intire Stop to the Progress of the Fluid; and hence as necessarily a Divulsion of the membranous and nervous *Fibrillæ*, with Increase of Bulk and Figure proportionate to the Obstruction.

Now 'tis from this sudden halling and lacerating these Filaments, in the *Tumours* said to arise from *Fluxion*, which makes the painful Sensation more severe and exquisite than where the said Distention and Solution are made more leisurely, and by slower Periods, as in the *Tumour* so called by *Congestion*: So that there seems little other Difference

rence betwixt them, than that the one is a Disease more hot and *acute*, the Obstruction coming on suddenly; the other more cold and *chronical*, where the offending Matter is more leisurely and gradually heaped up.

As for the Part *Mittent*, and the Part *Recipient*, observ'd by some Writers as the Foundation of the Disorder we are now treating of, we all know, Gentlemen, that the Body of Man is not only a *vascular Compages*, but that even each *Fibrilla* therein has its proper *Oscillatory Motion* derived from its Source, the *Meninges Cerebri*, or from the nervous System: So that where this Motion is the weakest, the Fluids, being *cæteris paribus*, in their Consistencies equal, no wonder, here should be the first Stop and Rise of a *Tumour*; or, that Parts which have the greatest Force of Constriction, should be most able to free themselves, and throw off the Burthen upon those where the Resistance is weakest. Again, that those depending should more readily than others, often favour this Malady, is not strange, the Motion of all Fluids being more facile by the *Declive*, and more liable to Impediment, or slacker *per Ascensum*.

Having said thus much of the Nature and Causes of *Tumours* in general, it remains that we speak a Word or two of their more particular *Division*: And here I find the most usual is borrowed from the four supposed Humours in the sanguineous Mass, which the antient Founders thereof have denominated *Blood*, *Choler*, *Phlegm* and *Melancholy*: From the first, deriving the *Phlegmon*; from the second, *Erysipelas*; from the third, *Oedema*; from the fourth, *Schirrus*; and, from its farther Degeneracy, into what they call their *Atra Bilis*, Cancer.

I cal-

Sect. I. Of Tumours in general.

I called them *supposed Humours*, since however some at least of them may be after separated from the Mass; yet is their Existence therein *quatenus tales*, before they have undergone a Change in their proper *secretory Organs*, not so manifest.

In our Survey of this purple Fluid, the Blood, by the Help of Glasses, we discover only certain globular Parts fluctuating in a limpid Vehicle; and the naked Eye, after its Extraction, when it has stood some Time in the Vessel, perceives nothing but a thick *Grumus*, swimming in the midst of a serous *Latex*; the upper part of which Grume, containing usually a variegate, white, greenish or yellowish Film, has accordingly, from some of the Antients, received the Names of *Phlegm* or *Choler*; the reddish Part adjoining, that of *Blood*; and the black Part at the bottom, *Melancholy*.

But later and much better Disquisition in the Anatomy of this Fluid, and the manner of Secretion of several Juices from the same, together with the Nature of Colours, and the specific Gravity of Liquors, have better inform'd us; and shewed, that the Superficies before-mentioned, is made up of the less-digested and assimilable Parts of the chilous Juice, before the same are rightly or thoroughly sanguify'd; which being naturally lighter than the rest, take Place at the Top. There is, indeed, another Sort of this fibrous Crust, which seems the Product, if I may so speak, of *Adustion*, being usually met with in all Distempers of the *Inflammatory* Kind; such I mean as the *Quinsie*, *Pleurisy*, *Peripneumony*, *Rheumatism* [I mean the *Humoral*] and the like, for the same Reason of the other Parts preponderating, here taking their

B 3

Residence,

Residence, and condensing into a Crust or *Gluten*, from its Likeness usually termed *Size*.

As to the red Colour of the *Grumus*, where this Siziness is wanting, it seems beyond Controversy owing in great Measure to the *Nitre* in the Air: For even the black Part at the bottom, or *Melancholy* of the Antients, being turned the Reverse, and exposed a while to that Element, will soon gain a much brighter and more florid Complexion. A farther Evidence we have of this, in the same Person's Blood coming out of a small Orifice, by which the Air has freer Access thereto, and pouring hastily at the same Time from a large one, in the other Arm, which you shall find of a much darker Hue, as not being so thoroughly pervaded by the said *Nitrous* Particles falling in between.

I shall not stay to examine the *Chymical Principles* of this Liquor; because I think by their *Analysis*, it is tortur'd to confess more than is true, from the Admixture of some igneous Parts, which its genuine and natural *Crafsis* knows nothing of: But shall now proceed with this farther Remark upon the Subject; That the Blood of diverse Persons, using different Ways of Living, being constituted of differing *Chylous* Juices, and those Juices sanguify'd in differing Organs, there is no wonder that Diversity of *Temperaments* should arise; that in the Blood of one, the *Sulphureous*; in others, the *Bilious* and saline; in others, the *Phlegmatic* and watery; in others lastly, the more *Terrene* and *Fæculent*, should predominate: And consequently, that *Tumours* of differing Natures and Denominations, as well as other Diseases, should result thence.

And

Sect. I. *Of Tumours in general.*

7

And thus we see how in a looser Sense, where the Principles of the Mixt are rightly and duly proportioned; or where the *sulphureous* rather predominate, being made out of Plenty of a rich and oily Chilous Juice, we denominate the Person *sanguine*.

Again, how from the said Juice ill constituted, or its undue Fermentation and Volatilisation; after it has put off the Name of *Chile*, if its Particles become less springy, are *effæte*, lentous and slimy, and consequently less fit for Assimilation, we pronounce him *phlegmatic*.

Farther, if in the said Juice there be a Redundancy of the *bilious* Humour, or that the same, by an over *Assation*, as the Antients express themselves, is become torrid or adust, we define him either *choleric* or *melancholy*; it being upon these Humours, that the four *Temperaments* of human Bodies are founded: Which at the same Time are so variable, that by Mismanagement, or an Abuse of what Physicians call the *Non-naturals*, the one is often changed into the other.

Thus the *Sanguine*, from too much Sleep, want of Exercise, or by Sloth, with heavy indigested Meats, becomes *phlegmatic*.

By too much Exercise, Over-watching, Indulgence of Passions, from a hot acrid and spicy Diet, *choleric*.

From a reclusé and sedentary Life, Cares, Crosses or Misfortunes, with a Diet of flatulent gross Nourishment, *melancholy*: and so of the rest: The Predominancy of some certain Humour still denominating the *Constitution*. If all four of these Humours were so luckily combin'd, as to bring their exact and

equal Share to the Composition [a rare Case] this they call'd their *Temperamentum æquale ad Pondus*. When so tolerably well pois'd, or duly blended, as to furnish out a healthy and sound Constitution, they gave it the Name of *Temperamentum æquale ad Justitiam*. But to return.

From this *Predominion* it is, that the same Authors have subdivided their four *Tumours*: Thus the one is called *Phlegmon Erisipelatodes*, from the over-poise of *Blood* to *Choler*: *Erisipelas Phlegmonodes*, from that of *Choler* to *Blood*. *Et sic de cæteris*.

† Elements of
Physic,
p. 13.

Our famous Dr. *Pitcairn* †, who is almost every-where, and often justly, exploding the ancient Definitions, altho' sometimes unreasonably reflecting upon all others, who could not relish his *Mathematical Medicine*, which yet has furnish'd, I think, some as unsatisfactory as those, that with great Warmth he had discarded; this Gentleman, I say, allows only of three *Temperaments* properly so denominated, and that these imply no more than 'a certain and determinate Fluxility of the Blood; which admits, that the Parts to be secreted from it, may be secreted, some easier than others, in any given Velocity of Circulation. Thus according to the *Alamode Physic*, the *bilious Temperament* is that Degree of Fluxility of the Blood, which allows, in a given Velocity, the Bile to be separated in the Liver naturally constituted, in a greater Proportion to the other Secretions, than is common to most other Men of the same Climate; and this is wont to be called *hot* and *dry*. Whilst the *melancholy Temperament* is that Degree of Fluxility, which allows, in a given Velocity of Blood, and a naturally constituted

2

' Spleen,

‘ Spleen, a greater Secretion than is proportion’d in other People, to the Urinary and Cutaneous Discharges, and this is nam’d a cold and dry Temperament. The Pituitous is, when in a given Velocity of Blood from the Heart, the Proportion of Saliva secreted, is greater than the Proportions of other secreted Fluids: And this Temperament is cold and moist; but here [continues our Author] it must be observ’d, that herein we suppose Men, in all other Respects healthful, and not influenc’d by any external Causes.

‘ As to the Temperament called Sanguine, it is no more than a Plethora, or a greater Quantity of all the Fluids composing the Blood, than what is common or ordinary: And from these Premises it follows, that such, as have any particular Temperament, are beginning to be diseased, or to deviate from a perfect State of Health: And that a Temperies, so called by the antient Physicians, is, in Reality, an Intemperies, or a beginning Disease. Thus far he.

But I fear, I have trespass’d on your Patience, whilst I have been explicating the Opinions of the antient and modern Writers, as to this Affair of Temperaments, or differing Constitutions of human Bodies; which having done with, I shall proceed to the Prognostics and Cure of Tumours in general; their Diagnostic Signs being usually contain’d in each of their particular Descriptions or Definitions; so that for avoiding unnecessary Repetition, I shall not notice them elsewhere.

The Prognostics then of Tumours in general, are to be taken from the Parts, on which they are situate, the Nature of the Humour, the Habit

General
Prognostics
of Tumours.

Habit of Body, the Manner of their Production, whether *symptomatical* or *critical*, and lastly, from the *Modus* of their Termination.

Thus if happening upon, or near adjoining to the more noble Parts, or such as are immediately concern'd in dispensing the animal and vital Functions, as the *Brain*, the *Wind-pipe*, and its Appendix the *Lungs*, the *Heart*, *Liver*, *Stomach*, *Womb*, *Bladder*, or the like; there is much more Danger, than when upon Parts less noble and necessary; if near to the large Blood-vessels upon the Joints and nervous Parts, more than when remote from the same.

Again, if the *Tumour* takes its Rise from the offending *Bile*, or its farther Degeneracy into an *Atra Bilis*, as the Antients speak, there may be more Danger than from *Blood*, or the *Pituita*; if arising in a *Cacochymic* or gross Habit of Body, more than where the same is rightly and better constituted: If, by Translation, from within, there is more Danger than when occasion'd by some outward Accident, especially happening to recede, or indiscreetly driven back again into the Blood by repelling *Topics*.

Finally, the Danger will be greater, if terminating by an *Aposteme*, and much greater still, if by a *Mortification*, than when the peccant or offending Humour impacted on the Part, will admit of Resolution, or being discuss'd.

Cure of Tumours in general.

As to the Cure of *Tumours* in general, all we shall say thereto, will amount to this, that, as each has its quadruple Time or Station, *viz.* *Beginning*, *Encrease*, *State*, and *Declension*; so likewise a four-fold Termination, *i. e.* by *Repulsion*, *Resolution*, *Maturation* and *Mortification*; to these by some is added a fifth, that

is *Induration*, which is rather a Change of one Disease for another, tho' it happen to be the Conclusion of the former.

The first of these Intentions is obtain'd by Medicaments *restringent* or *repellent*; the second, by such as we call *Discutients*; the third by *Suppuratives*; and the last is prevented, so far at least as Art can administer Relief, by means of those, which, with their spirituous Particles, assist the languishing Heat of the Part, and subdue the Putrefaction therein beginning.

The Nature and Faculties of all which, with the Manner of their Operation, we have already accounted for, in a short Appendix to our Treatise, *de morbis cutaneis*, concerning the Efficacy of *local Remedies*. The Names of such, as have been used in our own Practice, and the Way of applying them, either single or compounded, as the several Indications call for, will be gather'd from our Method of treating particular *Tumours*, to which we shall now hasten; and keeping to the antient Division of them, I shall begin with,

The P H L E G M O N.

This *Tumour*, from its Original, φλεγμονή, *de-Phlegmon*. notes a Swelling on any Part of the Body, with great Heat and Inflammation round about, attended with Fever, exceeding Pain, Tention and Throbbing, or Pulsation.

The Fever is owing to an intestine Commotion of the Blood, by means of some *Heterogeneous* Matter oftentimes admixt, or from an Obstruction of the Vessels, through some outward Vioience

Violence offer'd to the Liquor moving therein. The *Pain* arises from the tearing in sunder the nervous *Fibrillæ*, the *Tention* from the heaving up the Membranes by the Humours included, and the *Pulsation* from the obstructed Circulation in the adjoining Artery, which is now forced by a redoubled *Nisus*, or Vibration to drive on its Contents.

Cause.

The Cause of this *Tumour* is by the Antients, as we have already taken Notice, deriv'd from *Blood*; if it be a true *Phlegmon*, or admix'd with the other Humours, when it partakes of the *Erisipelas*, *Oedema*, or *Schirrus*.

When it riseth from *Blood*, there is a *Plethora* supposed of the Vessels: But here, surely we might expect, that Nature should rather ease herself by a *Hæmorrhage*, as she does sometimes, than by raising of this Swelling; 'tis true, we are not certain, but that when this *Turgency* of the Vessels happens through their Fullness, the Force and Motion of the Blood being stronger through the Arteries, than by the venous Channels; some Parts may be let go by the capillary, or evanescent Arteries in those Interstices, especially where the *Fibrillæ* are less Tense, or their *Oscillatory* Motion weakest, to assist and protrude the Fluid that is tending to an Extravasation.

But doubtless, we meet with this *Tumour*, where such *Plethora* is wanting; and therefore I am induc'd to surmise at least, that when it happens without Accident of Wound, Contusion, or other external Violence offer'd to the Part, by which the Circuit of the Blood is therein impeded, some foreign Matter being mixed with the Mass, raises first of all this Commotion

tion or Effervescence, and inkindles a feverish Heat therein, the same being Nature's Instrument, [as the judicious *Sydenham* expresseth himself] that she calls to her Assistance for expelling her Enemy, which having by this *Ferment* fitted for such Expulsion, according to the Nature thereof, and his Correspondency with her several Outlets, she casts forth by *Sweat*, by *Stool*, by *Urine*, by *Expectoration*; or if suited to none of these, he is sometimes thrust out into the fleshy Parts, in Form of an *Apostem* or *Abcess*, the Disease before us: And this by Physicians is called a *Crisis*.

Having here more particularly, as perhaps The Word also we may have in other Places, Occasion Nature to make Use of the Word *Nature*; I desire in what once for all, it may be noted, that *I use* Sense un- *the Term with some others, in a Sense Physico-* derstood. *mechanical, taking in a Complex of the whole animal Fabric, or which includes the Circulation of the Blood and nervous Fluid, together with the regular Disposition of all the Parts of the Body, as to their several Mechanisms, which, at first put into Motion by the supreme Author of their Being, are able of themselves afterwards, through the Energy he has bestow'd upon them, to answer the proper Ends intended them by their Structure.*

The *Helmontians* by their *Archæus*, the *Platonists* by their *Anima Mundi*, the *Cartesians* by their *Æther*, and the common People by their *Instinct*, mean surely much the same, if some of these obscure Phrases have any true Meaning at all: But to proceed.

We have already observ'd, that a *Fever* does accompany this Swelling, and light *Rigours* or *Shiverings* also at some times intervene, especially,

cially if terminating by an *Abscess*, nor is the said Fever *Symptomatic* only, as in the *Phlegmon* from Punctures, Wounds, Contusions, &c. but oftentimes, as when the Distemper ariseth from within, the primary Disease: The *Tumour*, as we have already taken Notice of, being the *Crisis* of such preceding Fever, in the Way of *Translation*; which is sufficient Caution, I think, to the young Surgeon, that he by no Means go about to repel such *Tumours*, or drive the Matter back into the Blood.

Every Pustule in the Small Pox, as Dr. *Morton* well observes, is a *Phlegmon* of this kind; and the striking in of the *variolous* Matter, is known by all to be very fatal, which brings me

Prognostic. to the *Prognostic*.

In Reference to which, we are to observe, as we remark'd before, in those of *Tumours* in general, so here particularly, the Danger is less or more, according to the Part it affects. And thus upon the *Larynx* or *Wind-pipe*, where it is called an *Angina*, more especially, when it is seated on the internal Muscles, there is always extreme Danger, unless the *Bronchotomy* or Apertion betwixt the *Rimulae* of the Wind-pipe steps in to ransome, as it has done sometimes, the strangling Patient: If on the Breast and Belly, upon or near unto the *Joints*, there may be Danger of a *Fistula* being left behind; again there will be more Danger, when arising from an inward Cause, than by the Occasion of some outward Hurt or Accident. In a Word, the *Phlegmon*, that can neither be brought to *discuss*, nor yet to *suppurate*, is full of Danger, on Account of the *Gangrene* and *Mortification* that is like to follow.

In

In Order to the Cure of this *Tumour*, if the *Cure.* Disease take Rise from an outward Cause, and that the Surgeon is call'd in Time; he may endeavour to repell the Influx of Humour, with a Defensative of *Diapalma*, *Bolus verus*, *cum Aceto vini & oleo Rosarum*, ā q. s. melted down and mix'd in the Form of a *Cerate*; or let him embrocate the Part *cum Oleo Rosar. & Aceto*; also the *Oleum & Unguentum Sambucin.* serve well for this Purpose; after which, a moderately streight *Bandage* may be applied, but not so as to create any Uneasiness upon that Account to the Patient, who must immediately be let Blood to 9, 10, 11, or 12, Ounces, according to the Age, Strength and *Temperament*, or Constitution. If the *Tumour* be on the Arm, a Vein in the Arm opposite is to be open'd, otherwise in that, where the Vein lyes fairest for the Lancet: Let his Body be kept soluble by Clysters, or lenient Purgation; and whilst you have any Hope of returning the Humour, or of discussing it either, let his Diet be as spare as may be; his Drink the good old *Ptisane* of Barley Water with a little Licorish and a few Raisins stoned, or some Liquor analogous thereto; his Food also the Barley or Water-grewel, *Panada*, or the like; avoiding all Sorts of Flesh, or even the strong Decoc-tion thereof: In Case of great Pain, his Bowels being first emptied by Clyster, or otherwise; some gentle Anodyne, *ex Aq. Flor. Paralys. ℥ij. cum ℥ll. ʒvj. vel ℥j. Syr. de Meconio*, may be allow'd at the Hour of Rest; observing farther, as well in this, as all other Distemperatures of like Kind, a due Regard to the other *Non-natu-rals*, such I mean, particularly as *Exercise* and *Passions*, Rest and an even Disposition of the Mind,

Mind conducing not a little to your Patient's Recovery.

*Allowance
to Custom
or old Ha-
bits, tho'
bad ones.*

When I mention'd this spare Diet, I would not be so understood, as if this rigorous Abstinence was to be enjoin'd to all without Exception; there being many Persons, who, by the Force of a wretched Habit, more especially, since that detestable and fatal Practice of tipling strong Waters, came into that Request it is in our Times, have made such Liquors as familiar to them, as our common Ale and Beer, to the more temperate; so that he, who scarce ever sleeps without a Bottle or more of Claret, or perhaps a Pint of the distill'd Spirits, must, even in his Illness, be allow'd daily half a Pint of the one, or a Dram or two of the other; the Indications for which, the judicious Artist must take from the *Languor* of the Spirits, or the Approach of a *Deliquium*, to which these unhappy People are more prone than others, when debar'd of their beloved Liquors.

But if notwithstanding your first Application of repelling Topics to the *Tumour*, with your other *Regimen*, the Symptoms of *Pain*, with still greater *Tumefaction* and *Inflammation*, should continue and increase; some *Anodyne* Application in the Form of a *Cataplasme* or *Pultis* to the Part, will be both necessary and useful to relax the over extended Fibre, sooth the enraged Spirits, and qualify the *Orgasmus* therein stir'd up; and from hence you will quickly discover, whither *Discutients* or *Suppuratives* are to take Place.

The *Cataplasme* I propose, is that simple one of the *Medulla panis in Lacte cocta cum pauculo Croci & Vitello Ovi additis*, or a *Decoctum Fol. Rosar. Flor. Sambuc. & Chamomel. in Lactis*

Lactis vaccini q. s. & Mica panis inspissatum.

If after this, for two or three Days repeated, the Tumour should remit or seem at a stand, you may endeavour to dissipate or discuss it with the following *Fomentation* and *Cataplasm*, with which some gentle *Restringents* may be decocted. For Instance :

R. Summit. Hyperic. Centaur. Min. ā Mij. flor. Chamom. Melilot. sambuc. ā Mj. fol. Rosar. rub. Mß. flor. Balaust. P. j. Coq. in p. æ. Aq. F. & Lact. vaccin. q. s. pro Bibij. Colaturæ.

If you would have it more discutient, you may add the *Summit. Absinth. rom. Rorismar. Fol. Laur. Bac. Juniper. Sem. Cymin. &c.* If more restraining, those above, in a double Proportion may be sufficient : But these hotter Simples are seldom wanted here, as by their Heat and Subtily too much attenuating, and increasing the Inflammation, altho' excellently well suited to the *Oedema*, or other cold and pituitous Swellings.

N. B. That the one half of this Colature, or strained Liquor, may be reserved for the *Fetus*; as is customary where the *Magma*, or Remains of the same are not so fit for pulping; the other for the *Pultis*, which may be now thicken'd with *Farina Fabarum*, instead of the *Medulla Panis* : And in the Decline of the Tumour, if it can be so brought about, for strengthening the Part, and recovering the Tone of the Fibres, the *Restringents* being increased, the Decoction may be made in the *Aq. Fabror.* or the Forge-Water, adding towards the End, a quarter Part of good red Wine.

Farther, when in Opposition to your Endeavours in repelling or dissipating the inflowing Humour, the Disease encreaseth, and light Rigours

or Shiverings [a frequent Attendant upon the making of Matter, in these inflammatory Tumours] come on, you must hasten Suppuration with the following or the like *Cataplasm*.

℞ *Rad. Alth. Lil. Alb. ā ℥ij. Fol. Malvæ Mij. ficuum ping. incif. ℥ij. Sem. Lini ac foenugr. Contuf. ā ℥i. Coquit. in lact. vaccin. dum pulpentur, Quæ supra pannum Crassiuscule extens. applicetur Calidè modo Pultis, parti inflammato. illinendo eandem Ol. Lil. priusquam applicetur.*

If a larger Quantity be requir'd, both the Ingredients and the Liquor may be augmented; if a lesser, diminish'd; the Figs and Lilly-Roots alone, boiled and pulped; or, for want of an Opportunity of procuring either, the *Unguent. Basilicon*, mix'd up with a Third of that *De Althæa*, and spread thick upon a piece of Cloth, or fine soft Leather, makes an excellent supplicative *Εὐπρόσιον*.

Observe in all *Cataplasms* thicken'd with Bread, but more especially with Flower, some Oil or Ointment must be mixed, or the Tumour well embrocated therewith, before they are laid on; otherwise, in these inflammatory Affects, they will quickly grow stiff and dry, to the great Disturbance of the Part, and Disquiet of your Patient.

Thus in the repercutient *Cataplasm*, you may put in the *Ol. Rosar.* in the *Discutient*, the *Ol.* or *Unguent. Sambucinum*; and in the *Suppurative*, the *Ol. Hyper. Lill.* or the *Unguent. Dialth. ℥i.* or more of the Oils, with *℥ij.* or *ijj.* of the Ointment to each Pound of the Pultis.

Cataplasms to be continued. I have been informed, that some Practitioners [but I think those not of the best Note] have almost discarded, I suppose for the Trouble of preparing

paring them; this good old Form of Chyrurgic Application, and substituted the *Emplast. Ebolo* to answer the first; *De Bac. Laur.* the second, and the *Diach. cum Gum.* for the last. But I can by no Means approve their Method, neither so fully answering the Intention, nor, I am sure, will they sit so easy upon so exquisitely painful a Tumour, as is particularly that about which we are now discoursing.

The Matter being once made, to be known by the remitting somewhat of the Pain, the nervous *Fibrillæ* having now undergone their utmost Stretch, and ceasing to be longer halled asunder; as also by the said Matter collected, fluctuating more deep or superficial, under the Pressure of the Finger: The *Tumour* also rising in the Middle into an Eminency or Cone, it must be let out or discharged by an Opening for that Purpose, made either by *Cautic* or *Incision*.

The former way is doubtless preferable in large *Apostems*, not only carrying less of Terror to the poor Patient, but more secure and advantageous.

'Tis true, the *Cautic*, however mild, will be attended with Pain, more or less, during its Operation; but this is after compensated by the Ease of the Dressing, when you have no occasion to cram in Tents or Dossils, as you must to keep the Lips of a recent Wound extended, and thereby choak in the Matter; by the one, encreasing the Pain; by the other, the *Sinuosity*: And the *Probe Scissars*, by these Means, are generally wanted, to finish what the *Lancet* has thus imperfectly performed.

I cannot say, that these will never be wanted, after the *Escharotic*; but I may say this, that I have not found them so often required: For if the Texture of the *Fibres* be not very much injur-

red by the preceding Putrefaction, this easy way of Discharge through the perforated *Eschar*, assisted by suitable Compress and Bandage, does often bring some of the largest Abscesses of this Kind, to a happy Conclusion, without farther Trouble; it being very common for the Tumour to subside, the broken *Fibres* to unite, the Ulcer to be *digested*, *deterged*, *incarned*, and ready for *cicatrizing* soon after, if not presently upon the Fall of the said *Eschar*, when sometimes a little dry Lint alone, or some other *Epulotic*, will be found sufficient to compleat the Cure.

However, if the *Abscess* be small, or upon the Face, where Care is to be had for Prevention of a *Scar*, after the healing up, I am not so fond of the *Cautic*, as never to give way to the Point of a *Lancet*; with which, when the *Apostem* is open'd, tho' a Vent no bigger than that for *Plebotomy*, or letting Blood, may suffice to let out the Matter: Yet, if the *Tumour* be any thing considerable, I should prefer one that is much larger; when instead of the Tent stopping up the Matter, a light Dossil may be laid down between the Lips of the Wound, armed with a *Digestive*, if there be little or no Flux, or some *Restringent*, as there may be found Occasion.

If the Cavity be deep, or in a Place where the Dossil slipping in, is not easily recovered, you may tie a bit of Thread or Silk about the same, for its more ready Extraction.

The *Digestive* for this Use, may be that common one of *Terebinth. Venet. cum Ovi vitello*, to which a little *Unguent. Basil.* is sometimes added, or this latter mix'd with the *Linimentum Arcae*, which of it self is a most excellent Medicine, and generally made use of for Wounds, more particularly of the Head and Face.

This

This way of Dressing by the Dossil, is not only easier to the Patient, but the Wound being more open, commodious for the draining away of Matter, between the Times of Dressing, the same Compress and Bandage here assisting, for uniting the *Sinuosity*, as if open'd by the *Caustic*; and if by these you cannot agglutinate, you are to dilate as in other *sinuous Ulcers* shall be directed.

Having mentioned *Compression* and *Bandage*, give me leave to add a Word or two in Commendation of these two noble Assistants to Chyrurgic Practice; which, if rightly understood, and as rightly adapted, would prevent many a bitter Groan of the Patient, as well as Heart-ach of the conscientious Practitioner of this noble Art.

I know they can't be always, but doubtless oftentimes both Knife and Scissars might be spared, were these well cultivated, or duly and timely practised; there being few *Sinus's* from recent *Apotems*, or of the *acute* Kind, where the Bone is cover'd, which might not by Means hereof be well united, and consolidate if situate also for the same.

Under the Name *Bandage*, I would have comprehended not only the common *Roller*, but the laced *Sock*, *Stocking*, *Knee-piece* and *Trowse*, together with the *Glove*, *Elbow* and *Arm-piece*; which by their equal Lacing, when well fitted to the several Members, oftentimes exceed the other, altho' managed by the most dextrous Hand. And by *Compress*, I mean more than a common *Bolster* of Cloth rudely laid upon the grieved Part, and as carelessly bound on. The *Plaster Compress* is what I hint at, which both keeps its Situation, and makes a truer Compression than the other Bolster. These may be very suitably prepared of your common *Defensative*, 3 or 4 Folds of them stuck together,

*The Use of
Compress
and Bandage; with
several
Sorts of
them.*

ther, and shaped, as near as may be, to the Compass or Dimension of the Cavity to be compress'd; observing heedfully to bring the Edge thereof even with the Lips of the disjointed Part, over which a Bolster of soft Cloth, in the ordering whereof, there is no such great Need of the former Exactness or Circumspection.

As to the Management of your *Roller*, you are to take Care, that the Circumvolution be made that way, whether to the Right or Left, as may bear first upon the Extremity of the *Sinus*, before it reach the Edge of the Wound or Ulcer; by which you will press out any contained Matter, and unite at the same time: Whereas otherwise you may chance to agglutinate the outward Orifice, and shut in the same to the Hazard of a fresh *Abscess*.

But here I must confess, what we call *Autopsy*, or ocular Demonstration, exceeds the most graphical Description; and the most instructive Rules for *Bandage* fall short of their being shewn by some compleat Proficient therein: The Length and Breadth whereof, are to be taken from the Size of the Limb, or Parts they are to encompass, with the Number of Circumvolutions round the same, that are required: And thus, for the Finger, about a Finger's Breadth; for the Wrist, 2 Inches; for the Leg, 3 or 4 Fingers; and for the Thigh, a Hand's Breadth, more or less, may be necessary. The same likewise for the Trunk of the Body.

The several
Sorts of
Caustics,
and the
manner of
applying
them.

But to return to the *Apostem*, whence we have digress'd, and to acquaint the young Practitioner what *Caustics* are most convenient for his Purpose. He is to understand, that there are three differing Forms or Orders thereof. The strongest, I think, is reckon'd the *Lapis Infernalis*, or the first running of the Soap-makers Lees, called *Lixivium Capitale*;

Capitale, this being boil'd up in a Brass or Copper Ladle to a Consistence, is, with a hot Knife, cut into Pieces of several Sizes, and kept close stop'd from the Air, till the Time of Use. A Piece of this, of the compass of a Silver Three-pence, will make an *Eschar* near as large as a Six-pence, and usually performs its Work in an Hour's Time. A milder than this, is made out of this *Lixivium*, with the Powder of *Calx viva*; and a still gentler, called from its Softness, I suppose, the *Velvet Caustic*, by the Admixture of a little Soap with the said *Calx*, made up into a Sort of Paste, which is used to Infants and tender Bodies, and suffered to lie on for Twenty-four Hours. Observing, that in all these *Caustics*, which have an *alkaline* or *lixivial* Salt for their Foundation, you must keep them in a dry Place, as before observ'd, secured from the Air, in which they would run *per Deliquium*, by a sound Cork and Bladder tied over the first, and a Bladder also over the Gally-pot containing the latter.

I forbear mentioning some other *Escharotics*, prepared from the several *Arsenics* or corrosive *Sublimates*, which I look upon as dangerous Medicaments, having frequently seen very unhappy Symptoms attending their Application, such as *Spasms* or *Convulsions*, from their malign Nature hereby communicated to the *nervous System*; with horrid Pain, and symptomatic Fever; also *Cardialgia* and incessant Vomiting, with cold Sweats, and *Syncope* or Fainting-away.

The way of applying *Caustics* is well enough known to be by snipping a Hole in a piece of Plaster, of the Dimension of the *Escharotic* intended, and having stuck some narrow Bits of the same all round the said Hole, the better to let in and contain your *Caustic*, you are to lay the Plaster upon

the *Tumour*, so as to cover the same, with the Perforation on the most prominent Part, where the Fluctuation of the Matter is the most perceptible, rather inclining to the depending than otherwise, for the readier Discharge thereof, and, if possible, to prevent an after Dilatation.

Into this Hole or Cavity, the Bit of *Caustic* is placed, with a Pledgit of dry Lint immediately thereon, and a Plaster upon that; also a cross Strap of the same adhesive Emplaster, with a moderate Bandage to retain all on; always remembering to proportion the Size of your *Escharotic* to that of your intended *Eschar*, lest you find yourself after deceived; for they will be apt to spread upon the Solution of their Salts, in spite of all your Precaution, and to make a Crust much larger than their own Compass, when first laid on.

This Caution, how unnecessary soever it may seem, I thought the less so, having frequently found an Ulcer the Effect of one of these *Caustics*, as big as a Half-crown, and that too upon the Face, Neck and Breasts of Gentlewomen, where the Scar, as much as possible, ought to be avoided, which needed not to have exceeded the Compass of a Silver Groat.

The *Eschar* being thus made, for which, as we remark'd before, you are to allow Time, according to the Strength thereof; you are to penetrate or cut through the same, at this Time insensible to the Lancet, and discharge what Matter flows forth freely, without confusing or over-much pressing the Parts adjacent, to get out all at once: For that, if the *Abscess* be very large, might hazard your Patient's fainting, with Suffocation of the native Heat of the Part.

After letting forth the Matter, apply a Pledgit of *Basilicon* dip'd in some of the same Ointment melted

melted down in a Spoon over the Crust, with a common Plaister of *De Minio*, or *Diapalma*, and a Bandage to retain your Dressings, which is to be no other, than such for the first Days, till the Patient grows easy; when the Compress and Deligation before-mention'd, will be absolutely requisite, by which artfully manag'd, and the Continuance of the same digestive, till the *Eschar* separates, you may perhaps unite the *Sinuosity*, completing your Patient's earnest Desire, and finding nothing more wanting upon the Fall of the Crust, than some *cicatrising* Medicament, to finish the Work; during the Course of which, more especially in cold Weather, and antient People, a warm Stuph or two wrung hot, out of the discutient Fomentation, in the Beginning taken Notice of, may be necessary not only to comfort the Parts, and help to dissipate the Reliques of the Humour, but to strengthen the relaxed Fibres, and recover their proper Tone.

But if, notwithstanding your Endeavours to unite or agglutinate, the Matter has so insinuated it self into the Parts about, or form'd such Cavities, as will not this Way admit of healing, before you enterprize the Dilatation; especially of such as are large, deep, or intricate in their Turnings and Windings; you are to deliberate, whether or no, by choaking in the Matter with a Tent, [and here I must confess, if at any time, there is an Use of them] you may not force the same upon raising some new *Abscess* in a Place more suitable for Discharge, or draining off the whole; when by a second *Caustic*, you may obtain, what you could not by the first: A Case very common in the milky *Abscesses* of Women's Breasts, where we meet with several *Apostemations*, one after another, that foil and baffle all our Skill, till the Matter
pent

pent in, either by these Means, or naturally subsiding to some more depending Part, is easily discharged thence; and what before had been the fruitless Work of several Weeks or Months, is now accomplish'd in as many Days. In a Word, if it be found absolutely necessary to cut open the *Sinuosity*, you are to proceed, as in *sinuous* and *fistulous Ulcers* shall be hereafter directed.

In the *Phlegmon* arising from an internal Cause, or which is the *Crisis* of a Fever, the same Method is to be observ'd; unless that, omitting all restraining or repelling *Topics*, you are from the first, to endeavour to discuss, or failing therein, to hasten *Suppuration*, as we have above directed. An Instance or two of this last kind, we shall give as follows.

Hist. I.

A young Gentleman, at that Time about fourteen Years of Age, the Son of a wealthy Merchant, then living in the *Spittle-Yard*, since named *Bolingbrook Square*, having for some Days been ill of a Fever, irregularly intermitting; after the fourth *Paroxysm*, complain'd of a Swelling, with a small Inflammation, about a Hand's Breadth above the Joint of the Knee, which growing harder, more painful, and inflam'd, I perceiv'd a true *Phlegmon*, so far advanced, as to indicate no other than *maturative Applications*; and indeed if it had been capable, by no means safe to have been treated otherwise; the febrile Matter being here separated by the Strength of Nature, and thrown out of the Blood as inimical thereunto; for forwarding therefore the *Suppuration*, I directed the following *Cataplasm*.

R. Rad. Lill. alb. prius lotorum, & ab omni Sorditie Mundat. ℞. Ficuum pinguium incis. ʒiv. Coq^r. in Aq. F. & Lact. cat. ā p. a. q. s. donec in pulpam reducantur, cui addendo Ol. Lil. ʒij. f. instar Pultis, cujus pars tertia vel circiter, applicetur

*tur parti Femoris tumefacto, renovando post 24 -
Heras.*

The Day following the second Application, I perceiv'd the Matter fluctuating, the *Tumour* prominent in the Middle, and fit for the Discharge; wherefore I applied a Piece of the milder Caustic, *ex Calce cum Lixivio supradicto*, of the Length of one Inch, and the Breadth of a quarter, over Night; the next Morning, finding a proportionate *Eschar*, I enter'd the same with a full-pointed Lancet, discharging near a Pint of *Pus* well concocted; upon which the Symptoms remitting, the young Gentleman grew easy.

The *Eschar* was drest up with a Pledgit of *Basilicon*, dipt in some of the same, made warm in a Spoon; a Bolster Compress being placed on each Side, with a double-headed Roller, for the more commodious pressing forth the *Matter*; which daily lessening by these means, the *Sinuosity* above united, but the Crust separating the Flesh underneath, appear'd spongy; upon which sprinkling on the *Precipit. rubr.* I changed the *Basilic.* for the *Linim. Arcaei*, and continued this way of dressing, sometimes strewing on the said *Precipit.* by it self, at others mixing it with the Digestive; till the Ulcer being fill'd up with a seeming sound Flesh, and ready to *cicatrise*; I drest it up with dry Lint, concluding my Work accomplish'd. But finding the Discharge one Morning increased, at least much greater than could be reasonably expected from the superficial Sore, passing my Probe through a small *papillary Excrecence*, or *spongy Caruncle*, I found at that End next the *Patella*, a *Sinus* passing deep under the *Rectus*, and was apprehensive of its penetrating into the Joint; upon which fitting a Plaister Compress, and endeavouring

ing by Bandage to unite the said Cavity, I found the Trial fruitless; the Matter still discharging in great Quantity: So that acquainting his Parents with the Necessity of enlarging the Wound, or to leave a Fistula, I first of all introduced a Bit of *Gentian-Root*, to make more Way, and thin the said Cavity, for the easier dilating of the same, either upon the *Directour*, or by the *Probe Scissars*, as should be found most expedient. After a Day or two thus spent, we call'd in Mr. *Bernard*, who examining the Case, and preferring a strong shank'd Pair of Probe Scissars I had by me; the *Sinus*, which was near an Inch thick, and more than three Inches in Length, was immediately cut open, the Wound being presently fill'd up with dry Dossils and a Pad of Tow dipt in *Oxyerate* sprinkled over with *Farina Tritici*, in regard of a small *Hæmorrhage* attending.

The next Day, taking out the Dressings, and having applied two or three hot Stuphs express'd from a Decoction of the warm Plants (for it was Winter-time) and the camphorated Spirit, we fill'd up the Incisions with Dossils dip'd in the melted Liment, also a Pledgit of the same externally, and roll'd him up for that Time: But the Day after, examining the Wound more narrowly, and passing my Instrument directly downwards, I felt the Bone of the *Femur* denudated of its Cover the *Periosteum*; upon which, endeavouring to make more Way, I distended the Cavity with Dossils of dry Lint made up hard for that Intention, and clapt down close with the *Digestive* as before on the outside, and suitable *Bandage*.

At our Meeting, the Day after, my Assistant being by, taking out the Dressings, he thrust down his Finger to the bottom of the Wound, and plainly perceiv'd a large Piece of the outward, or
cortical

cortical Part of the *Os Femoris*, in the manner of a thin *Lamina*, already desquam'd or separated from the sound Part, lying entangled only by some fleshy Fibres, or rather a *fungous Flesh*.

At this Dressing, we strow'd thereon a little of the *Præcipitate*, and as before, fill'd up the Cavity with Dossils; when the second Day after, meeting again by Appointment, and with my *Forceps* extracting the lowermost of the said Dossils, the *Exfoliation* came into Sight; upon which placing the End of my *Spathula* underneath, without any Force used, or Flux ensuing, I lifted out a Piece of Bone very ragged all round the Edges, of an Inch and half from one Extremity to the other, and about half an one over; after which we laid in our Dossils, made more soft and easy to the Wound, dip'd likewise in the dissolv'd *Liniment* aforesaid, and therewith sometimes mixing the *Præcipitate*, quickly after, the Obstacle to healing being now remov'd, the same was *incarn'd* and *cicatrised* with dry Lint only, without any farther Trouble.

And this Case I think the more remarkable, in that a Bone was found so suddenly separated in a *Tumour* of the *acute* Kind, or made, as we say, by *Fluxion*, and ensuing a febrile *Crisis*, without any external Violence or Accident befalling the Part, but arising suddenly with *Pain*, *Inflammation* and *Pulsation*, after the manner of a common *Phlegmon*.

It was the Opinion of his Physicians, that the Matter, tho' lodg'd so short a Time upon the Place, had yet however, by its corrosive Quality, eaten off the *Periosteum*; to which I could not assent, believing rather, that the Malady, as in some *strumous* Affects, began at the Bottom; and raised the *Tumour*, *Pain*, and *Inflammation* outwardly, and that those irregular Fits, as they were termed of an *Intermittent*, were mere *Rigours* usual-
ly

ly attending these Affects of the *membranous* and *nervous* Parts. However, as I observ'd but now, it must be look'd upon somewhat singular, that an *Exfoliation* from so hard a Bone, without any previous Appearance, should be so suddenly rais'd, as the Space of a Fortnight, or thereabouts.

HIST. II.

A Woman, middle-aged, of a *Scorbutic* Habit, after a Feverish Indisposition of some Days, was let Blood in her Arm; but whether by means of the Ligature intercepting the Circuit of the Blood *pro tempore*, the Fluxion might be here as it were invited [for it was apparent, that no Injury had been done either to the *Tendon* or *Artery*] or that a *Crisis* being at Hand, *Nature* had otherwise thrown out the morbid Matter from the Blood into the same Part; it so happen'd, to the great Misfortune of the Surgeon, who had been employ'd, the same Night an Inflammation seised the Arm, extending it self from a little above the Joint of the *Cubit*, to within a small Space of that of the *Carpus* or Wrist.

The next Day, I was consulted, when in Justice to the Surgeon, I declar'd, he was no other ways instrumental to the Accident, than in the unlucky timing the State and Condition of the preceding Fever, bleeding her, before her Body had been prepar'd by some lenient Purgation, or being hot and costive, the throwing up an emollient Clyster, that might have deriv'd at least some Portion of the peccant Matter by the inferior Passages. For the *Despumation* being begun, and the noxious Humour, like a Scum, ready to be thrown forth out of the Bosom of the Blood; the tying of a Ligature, as I observ'd but now, might probably make way for its falling rather upon this, than any other Part of the Body; but which was out of any Man's Power, either to have foreseen

or

or prevented; and indeed had not the Storm fallen here, it had in all Likelyhood shew'd it self elsewhere, or perhaps prov'd more dangerous to the Life of the Patient, either by Continuance of the feverish Effervescence, or Translation of the Matter to some more noble Part.

But considering the Nature and Cause of this Inflammation, I could by no means advise a Repercutient, or repelling *Topic*; and therefore, when I had order'd, that the Orifice should be dress'd up with a Pledgit, arm'd with a Digestive; I directed, that the Parts affected should be gently embrocated, *cum unguento Sambuc. ac pauculo Camph. in Spir. vini solut.* and afterwards an *anodyne Cataplasm* laid on *ex decoct. Flor. Sambuci & Chamomeli in Lacte, cum mica Panis in consistentiam redact.*

The next Day, the Tention seem'd a little to relax, and the Inflammation was somewhat less, the Orifice soft and pliable, and tending to close up; that Evening I prescrib'd a Clyster, advising a spare Diet, forbidding Flesh, and all Liquors, except the small diluting ones allow'd in *acute Fevers*, with her Grewels and Panada; which was a Penance, I perceived, very difficult to her, who had used herself to more relishing Foods, as well as Liquors; and, I was satisfied, transgress'd herein, by her own Servants: Upon which Account, for abating the *Plenitude*, and making farther Derivation of the Humours, I would have risqu'd a second *Vena-section* in the opposite Arm, and readily offer'd my Service therein for her greater Encouragement; but she would by no means comply, having let in an unalterable Belief, that her first Bleeding had been the Occasion of this Misfortune; so that at this second Opening, we only renew'd the Applications as before, with farther

I

Orders

Orders of an *anodyne* Draught in the Evening, after the *Clyster* had done working.

Yet the next Day, notwithstanding all our Endeavours, a true *Phlegmon* appear'd: The Inflammation and larger Tumefaction again shew'd it self with great Pain and Throbbing also, threatening an *Abscess*.

However, once more I order'd the Arm to be *embrocated*, and the *Cataplasm* also to be laid on as at first. The Orifice was closed up, and that Part of the Bend of the *Cubit* easy, less partaking of the Inflammation than those below.

The fourth Day, perceiving our Labour vain towards a Resolution or Discussing of the Humour, the Tumour still encreasing, I ordered a *Cataplasm* of the *Rad. Lil. alb. fici ping. Sem. Lini ac sænugr. in Lacte Cocta, & Pistilli ope ad instar Pulpæ Coacta*: When the next, we found the same more manifestly enlarged, and rising as it were *conical*, about four Fingers Breadth below the Flexure of the *Cubit*, her Pain greatly encreased, and she restless and impatient; so that I had much Difficulty to reconcile her to admit the young Man, who had bled her, to give Attendance; nor would she upon any other Terms, than my Promise of standing by, at the Times of Dressing.

The Tumour, by the Day following, being now thoroughly *suppurated*, and the Matter fluctuating, a piece of the *Velvet Caustic* was laid on, and continued all Night: When early the Day following, a Lancet was thrust thro' the *Eschar*, and about half a Pint of a well concocted Matter let out, upon which she grew easy; the Fever, Thirst, Inquietude, and other Symptoms now going off.

The next Day after the Discharge, a Fomentation was made use of to comfort the Parts, strengthen

en the relaxed Fibres, and breath forth the Humours, *ex Decoët. Summit. Centaur. Flor. Chamomel. Melilot. Sambuc. &c. cum tantillo Spir. Vini Camph.* and as the same was capable of bearing *Compress* and *Bandage*, to promote Agglutination of the Sinuosity: Which after about a Week's Time, the Discharge daily lessening, and the *Eschar* thrown off, was accomplish'd in the upper Part; but the *Sinus* depending, and running down over the *Radius internus*, or *Flexor Carpi*, would not unite, but laid us under a Necessity [tho' I did all I could that I might obviate farther Clamour, to prevent it] of dilating, and which I discover'd, running above three Inches in Length. When I had, in the mildest Way possible, apprised her of the absolute Necessity of such Proceeding, she at last complied, and the *Apparatus* being got ready, with proper Attendants; after I had passed in a *Directour*, and with the same bearing tight up against the Skin, as much as possibly towards the outside of the Arm, for avoiding the tendinous Parts and Blood-vessels, the Surgeon with his Knife cut along the *Sulcus*, till we had opened the whole Length of the Cavity, when dressing up with dry Dossils, rolled in the Powder of fine Bole, [by Reason of the *Hæmorrhage*] and a large Pledgit of Tow, wrung out of *Posca*, and sprinkled thick with *Farina Fabar.* we rolled up the Arm, securing it in the Napkin upon a Semiflexure.

The Work being now fairly in View, the second Day after, loosening the former Application, the recent Wound was dress'd up daily with softer Dossils dip'd in the warm *Liniment* of *Arcaeus*: In some Parts, where the *Fascialis* lying long expos'd, was grown putrid and sloughy, strowing on a small Quantity of the *Precipit. rub.* till di-

gesting off, and the Ulcer mundified, the same Medicine, together with my *Cerate* of *Lapis Calaminaris* and dry Lint, quickly after accomplish'd the Work, as well of *Incarnation*, as *Cicatrisation*; and the Surgeon, who, I am well satisfied, was blameless, as to any Mal-management of the Lancet in the letting of her Blood, was not only obliged to stand the Censure of his Neighbourhood; but to prevent the farther Clamouring of his Patient, [much contrary to my Persuasion] to bestow near six Weeks Attendance for the poor Pittance of half a Crown he had at first receiv'd, for the unfortunate Operation.

I well remember an Accident of Kin to the above-mention'd, befell my self many Years ago; when by the Advice of a Physician, I bled a gross-habited Patient, then labouring with an *Erysipelas*, on the Face and Neck, from whence the bilious Effervescence was presently translated to the bleeding Arm; and it was not without great Difficulty and Pains, that I kept off a *Gangrene*, and secur'd the Limb from a *Mortification*; which had such Accident ensued, or the Patient miscarried at such a Juncture, I need not tell you, Gentlemen, who have perhaps some of you had Experience thereof, on whom the Ignorant would have cast the Censure. And thus far in the Way of Hint, or Animadversion upon the ill timing rather than in-artificial Section of a Vein, in letting Blood, to shew those who are less acquainted therewith, upon how slippery a Foundation, at some Times, stands the Reputation of every Professor of this Art.

The last and indeed the worst Way of Termination of this *Tumour*, as we have already observ'd, is that by a *Gangrene* and *Mortification*.

This being then the most dangerous of all others, and by which the poor Patient oftentimes com-

compounds for his Life, with the Loss of a Limb, and very frequently lays down Life it self, it will most highly behove the Artist, to use his utmost Endeavour to obviate the same.

When therefore the Matter of this *Tumour* can neither be repell'd, where safely attempted, *discuss'd*, or brought to *Suppuration*, but that the Swelling still increaseth; it must happen at length that not only the smaller *Tubuli*, but the larger Vessels, will be obstructed by the great Compression, the Juices therein stagnating; the native Heat, by this interrupted Circulation, will quickly after be overcome, and a putrid one succeed in its Place. The Signs of which are first of all a Change of the bright Redness or Inflammation, for one of a more dusky or livid Complexion, which is owing to the Stagnation aforesaid: The *Tumour* begins to subside on a sudden, the *Tention* going off, and the musculous Flesh grows flabby; the Spirits having undergone their utmost Expansion, and being now put, as it were, to Flight, a Coincidence of the Parts, which were before kept elevated by such Expansion, must ensue of Course. A *Stupour* or Numbness comes on from those Spirits having abandon'd their wonted Places of Residence, an Inactivity of the Limb, or Inability for Motion, from the same Cause: *Vesications* arise from the putrefactive Ferment now beginning, and the stagnant Blood deprived of its natural Heat, and balsamic Quality, runs out into an *ichorous Cruor*, which ousting forth the *Capillaries* under the *Cuticula*, raises the same up into small Bladders, after the manner, as in some highly *malignant* Fevers, also in some kinds of the Small-Pox, where the *Compages* of the Blood is broken, we find the like Bladders, implete with such a corrosive *Serum*, and a *Gangrene* of the Parts underneath. Nor

is it strange, when the vital Union is thus dissolv'd, that Part, which without *actual* or *potential* Fire, could scarce be separated before, should now give Way, and very easily be lifted up by the putrid *Ichor* aforesaid.

It is from this parting of the *Cuticula* from its subjacent *Cutis*, in Infants called *still-born*, a near Judgment is to be made, how long the *Fœtus* has expir'd its last; but I forget my Subject.

So soon as ever these Symptoms begin to appear, let the Part be *scarified* more superficially or profoundly, according to the Sense thereof; let a strong *Lixivium* of Wood-Ashes, boil'd up with some of the hottest of those Plants before-mention'd, with others, as the *Summit. Absynth. Abrotan. Pullegii Rorismarini, fol. Laur. bor. Chamomel. Lavendul.* and the like be used as a *Fomentation*: Double Flannels being strongly express'd out of the scalding or boiling Liquor, into which one half of some good strong Wine, a fourth of Brandy, or an eighth of its rectified Spirit with *Campher* [℥j. to ℥ij.] has been poured, upon taking it off the Fire, or a little before, so the Liquor be boiling hot altogether, it is sufficient.

After half an Hour or more thus spent, let your Scarifications, which have been made so deep, as to fetch Blood, and in making which, you are to be careful, that you observe the Course of the *Fibres*, avoiding the large *Blood-vessels*, especially the *Arteries*, as also the *Tendons*; let these, I say, be fill'd up with small Dossils of Lint press'd lightly out of your *Ol. Terebinth.* made hot, with about a third Part of the *Tinct. Myrr. & Aloes*, over which a Compress or Pad of Tow, press'd out of your camphorated Spirit, or as is now customary among us, the *Theriaca Lond.* spread thick upon a Cloth, and applied in the Manner of a

Cata-

Cataplasm. Some take the Residue of the Decoction, and pulping the same, mix it with the *Theriaca*.

These Dressings are to be renewed once at least if not twice a-day, as Occasion requires, till there appear Signs of *Digestion*, or that *Matter* shew it self either in the scarified Places, or round the Edges of the *gangren'd* Part, where the same is stop'd and begins to separate; at which time your Dressings must be milder, as the *Linim. Arcæi*, run down with a little of the said *Ol. Tereb.* or the *Bals. Tereb.* with more or less of its Oil, as the Sense of the griev'd Part shall require; taking Heed always, that the Strength of your Medicaments, at such Times, are thereunto proportion'd: For, as the Disease will get Ground under the less warm and spirituous, so the over-hot and sharp, by exciting unnecessary Pain, will stir up some new and troublesome Symptom. 'Tis a Sign, the Strength of them is duly qualified, when your *Digestion* appears laudable, and the Patient feels only a kind agreeable Warmth for some time after; thus, if immediately upon Dressing, he should make no Complaint at all, or be perceptible in no wise thereof, 'tis an Argument, you are upon an Extreme one way; as if the Heat and Smart continue, or prove intolerable, you are then, 'tis to be fear'd upon the other.

When by these means, your Putrefaction is corrected, and your *Sloughs* cast off, the Ulcer must be treated as in those with Loss of Substance shall be directed, where we come to speak of Ulcers. But should the *Gangrene* resist your utmost Skill, and bid Defiance, as it were, to your best Endeavours, getting still more Ground and spreading, or turning into an absolute *Mortification*, what then remains? Why, truly nothing that I know of, unless with the Poet, to pronounce;

*Immedicabile Vulnus,
Ense recidendum est, ne pars sincera trabatur.*

The Manner of *Amputation*, you will find in several Authors, who have professedly treated of that and several other *Chirurgic Operations*: Among others, *Monfieur Vauguion*, *Le Clerc Charrier*, as also in the Works of that excellent Practitioner, *Guliel. Fabricius Hildanus*; likewise Mr. *Richard Wiseman*, in his *Chirurgical Treatises*, has given ample and good Instructions for the younger Artists to pursue. Having met however with one Example very particular in some of the Circumstances, relating to this Matter, I shall communicate the same as follows.

HIST. III.

An Elderly Gentle-woman, upwards of Seventy, of a thin, dry Habit, yet all her Life-time strong and healthy, being seiz'd with a *Fever*, but unacquainted with *Medicine*, intending the same should take its Course, went on in her own Way, with *Posset-Drink*, and other suitable diluting Liquors, for her Thirst, but without any *Alexipharmic Medicine* whatsoever, that might have assisted Nature in promoting a *Diaphoresis*, or expelling the febrile Matter through the Pores. After few Days, the same being translated to one of her Legs, rais'd suddenly a *Tumour* with *Inflammation*, of the *Phlegmonoide* Kind, or therewith partaking of the *Erysypelas*; which, increasing with great Pain and Throbbing, as if tending to apostemate, she sent for me. The *Tumour* was seated on the In-side, a little above the Ankle. Considering its Cause, which was internal, together with the Subject, a Person so far advanc'd in Years, I was apprehensive of some ill Consequence; but endeavour'd what I could to assist Nature, and forward the *Maturation*

ration with a Pultis of Figs, thoroughly boil'd and pulped, and about a third Part of *Theriaca*.

The Day after, the *Tumour* sinking on a sudden, and the Colour turning livid, I perceiv'd a *Gangrene*; upon which Account I scarified all round, encompassing that Part of the Leg with the *Theriaca* by it self, as hot as she could suffer it, and at Night sent in a Decoction of the Plants before-mention'd, made in the common *Elixivium*, with which the Part was well fomented, and dress'd up as before.

The next Day, tho' the *Gangrene* seem'd to have made no Advance upwards, yet was the whole Foot, as it were numb'd, and discolour'd, the Skin feeling hard and dry like a Piece of Parchment; the Extremity hereof, I mean the Toes, cold and insensible; when perceiving the Case desperate, I would have had a Consultation, but was denied the Assistance either of *Surgeon*, or *Physician*; so riveted was the old Gentlewoman's Prejudice, as well as that of her Children's, against either of those Professions: So that scarifying farther in several other Parts, till some little Effusion of Blood was thereby obtain'd, and washing the Incisions with an arm'd Probe dip'd in a hot Mixture of *Ol. Tereb. Tinct. Myrr.* and a little of the *Ægyptiacum* melted down therewith; after I had caused the Limb to be well fomented, I applied a Wad of Tow, express'd from the hot camphorated Spirit, and roll'd up the whole Leg upon a Stuph wrung out scalding hot from the said *Fotus*. This done, I told her Friends, there was no Hopes of her Life, but by the Loss of her Leg; and considering all Circumstances, so very little, even that Way, that I could, by no Means, persuade her to such an Enterprize; *Nature* being, as we say, worn out, the Principles of Life dissolv'd, and the

Lamp upon its Extinction, through the Want of proper *Pabulum* to continue the same. I then went to her Bed-side, and acquainted her with her Danger, which she receiv'd with a Christian Fortitude and Presence of Mind, submitting cheerfully to the Sentence. I would however, have perswaded her to have taken some warm cordial Medicine, to keep up her Spirits, and assist *Nature* some little while at least, in subduing the Putrefaction; but she would hear of nothing that way, except a Morfel of the *Conf. Mithridat.* dissolv'd in a Glass of Canary twice a-Day.

Her *Pulse* was high and strong in her Wrist, notwithstanding the languid and obstructed Motion of the Blood in the Part affected; *Nature* now using her utmost Efforts, and struggling hard for the Mastery. The chief Symptoms she complained of, were the recurring *Rigours*, which made the Bed shake under her, at other times neither *Tremor* nor *Subsultus* attending.

In this Condition she lay for three Weeks, the *Mortification* advancing so slowly, that it had not got up to the Calf; for, I pursued it daily with fresh Incision to the quick, and my spirituous Medicines in the same, after well fomenting, encompassing the Limb with the *Theriaca*, made hot, and spread on Cloth like a *Pultis*. The whole, especially that Part, that was *sphacelated*, growing daily more hard and dry, emitting not a tenth part of that *cadaverous* and *putrid* Stench, attending the more corpulent, moist, and flabby Habits under the like Circumstances, but appearing rather like a Limb long time impail'd, black, dry, and shrivel'd, occasion'd in some Measure by the *Embammata*, made Use of to preserve the *Compages* as long as possible, and to prevent the Increase of the Putrefaction; for, finding her likely to hold

out.

out some Time longer, I had, for my own Ease and Security, prepared a Sort of *Condiment. expulver. Thuris, Myrr. Aloes, Benzoin*, and the like Gums, with which, having cut deep into several Places of the Foot and Leg below the Calf, I fill'd up my Incisions; then dipping a Cloth, ce-rate-wise in a Solution of the same *Gums*, with some of the *Resina Abietis*, I surrounded the Limb, thus, as it were, *embalming* her before Death.

At about five Week's End, such was the Vigour of her Constitution, and so wonderful this natural Struggle as I may say, between *Life* and *Death*, that the Mortification having been at a Stand for five or six Days, at last began to separate at the usual Place of *Amputation*, tho' not truly circularly, yet obliquely so, quite round almost to the Bones: Upon which, I renewed my Endeavour to help forward this great Work, cutting away some Sloughs that adhered to the upper Part, and filling up the Vacuity with large Dossils of soft Tow dip'd in the hot Oil of *Turpentine*; till the Digestion appearing more laudable, and in larger Quantity, she complaining likewise of the Heat and Sharpness of the Pain, I added a little Lini-ment to soften the same, strewing some of the *Precipitat. rub.* where the Sloughs required; and encouraging the Heat, by the Stuphs, twice a-Day renewed, from which she perceived always great Comfort, the *Rigours* returning less frequently, so that I began to conceive great Hopes of her Recovery. But it happening in the Night-time, that a *Slough* loosening on the Inside, upon the upper Part, a Branch of the *Crural Artery* running down by the same, was open'd, and a large Quantity of Blood discharged, before any Discovery was made thereof, with more still, before I could come to her Relief; when having provided what

I thought necessary, viz. *Restringents* of several Kinds, the *Bill Forcipes*, with the *cauterising* Irons, I hasten'd to her, and taking off the Dressing, clearing away the Blood, and putting under her some fresh Linen, whilst, with a Button of Tow held close to the Bleeding-vessel, I secur'd any farther Effusion of this Treasure of Life; directing in the mean time a Fire to be got ready, and the Iron put into the same. Whilst this was doing, I attempted with my *Forceps* arm'd with its *Ligature*, to take up the Vessel, but found the End of the same so deep buried in the musculous Flesh, that not succeeding this way, so soon as ever the Iron was ready, I thrust up a Button *Cautery* against the same, and searing up its Extremity, stop'd instantly the Flux; then dressing up as formerly, left her for that Time, with her usual Refreshment, a Glass of Sack and a Toast. Returning again in the Evening, I found her *Pulse* languid, and her Spirits much depress'd, with a *Rigour* then upon her; she took some more of her *Mithridate*, and another Glass of Wine.

The Day following, I perceiv'd the *Digestion* more crude, the Flesh also in the Ulcer less florid, but a thick Crust upon the part covering the Mouth of the Vessel; sprinkling my *Precipit.* upon the *Sloughs*, still adhering in several Places, and adding somewhat more of the *Ol. Tereb.* I dress'd it up again, forbearing my Fomentation, for Fear of renewing the Flux of Blood, by the Heat thereof.

The next Day, I clip'd off several Pieces of the rotten musculous Flesh, and with my dissecting Knife made Way for the Saw all round, dividing some little Fragments with its Point, with the Back of which I also ras'd off the *Periostium*, intending, if I could recover the *Digestion*, to have taken

taken off the mortified Limb the Day after; but so fatal, alas! was this unhappy Accident, that the *Rigour* returning with greater Severity than ever, was quickly after attended with universal *Spasms*; and in the Middle of the Night, she went off convuls'd, who, before, seem'd very likely to have, and I believe verily, had otherwise, surmounted all her Difficulty and great Danger, unless the Discharge from the Stump, before the same could have been brought to a *Cicatrix*, had obstructed the desir'd Success.

And thus much for the first of our general *Tumours*, the *Phlegmon*; in discoursing whereof, if I have been too prolix for the Term *general Idea*, I hope to make you some Amends in my Account of the rest, there being some things mention'd here, that I could not well avoid, which may probably be refer'd to, hereafter in our Discourse of them.

Of an ERYSIPELAS.

The *Erysipelas* is the second of the general *Tumours* taken Notice of by the Antients, deduceable from *Choler*; as the other from *Blood*, according to their Sentiments: We rather chuse to call it the Offspring of a *bilious Serum*, [pure *Bile* producing rather an *Icterus* or *Jaundice* than an *Erysipelas*] diffused from the Capillary Arteries, to the Surface of the Skin, among whose Diseases, we have reckon'd it in our Treatise *de morbis cutaneis*, wherein we have said so much as to its Nature, Cause and Cure, that we shall avoid as much as may be, a Repetition of what is there deliver'd, and shorten our Discourse upon this Subject.

We

We define it however, a painful Swelling of the Skin, of a yellowish red, but not so intensely as the foregoing, accompanied with some Tention, pricking and burning Heat; receding upon Pressure, and presently again returning; attended also with a feverish Indisposition, and light Shivering, tho' sometimes unobserved, at the time of its breaking forth the Skin: Of which feverish Ferment it is very commonly the critical Production, Nature taking this Way by the bilious Effervescence, to free her self of some intestine Enemy, throwing him out by the miliary Glandules thereof; as in the Phlegmon, other morbid Particles were discharg'd upon the Interstices of the Muscles, or more fleshy Parts: And as the Cholera per se, when unduly secreted by the Glandules of the Liver, or when discerned, stop'd in its Journey to the Duodenum, regurgitates into the Blood, where circulating round the Body together therewith, it tinges the whole Surface thereof with a yellow Complexion, there exciting by its Salts, an Itching frequently, but without Pain; so here, the bilious Serum diffused only by a critical Translation, into some particular Part thereof, by reason of its Heat and Acrimony, stirs up therein a tingling, Smart, and burning Heat, painting the Skin affected, with a yellowish shining Redness, or a Colour that way inclining.

Distin-
guish'd
from other
Inflamma-
tions.

From what I have said already, I think this Disease may be distinguish'd from the Phlegmon: however, I shall lay down this farther Note of Discrimination, that as in the Distemper under present View, there is both less Tention, inflammatory Redness, and Pulsation; being merely an Affect of the Cutis or Skin, there must be much less also of Tumefaction; so little truly, that at some Times both Measles, Scarlet-Fever, and flux'd Small Pox, have been taken for this Disease; from all which,

which, it is however enough differenced, to be distinguished by an heedful Artist. For, altho' in the *Morbilli*, the *Febris scarlatina*, and the *Erysipelas*, the *Cuticula* is thrown off in the like branny Scales, at the Declension of the Disease; yet it is easy to know the first, by the Irregularity of their Figure, and Distances from each other in the *Eruption*, before they run, as it were, into one. In the second, the *Scarlet Fever*, the *Inflammation* is indeed continuous, but spreads, in a manner, universally over the Surface of the Body, especially the Trunk thereof; whereas the *Erysipelas* is limited to some particular Part or Member, as the *Arm*, *Leg*, *Face*, *Head*, and the like, with an Elevation of the Skin, as was observ'd but now, and which is wanting always in those other *cuticular Eruptions*. So that the nearest Resemblance to this Distemper is given by a *flux'd Pox*, when an *Erysipelatous Efflorescence* oftentimes appears on the Face, with *Tention*, *painful Redness*, and *Tumefaction*; but here also an accurate Enquiry by the Touch, discovers a Rugosity, if not the *Tubercula* themselves, under the *Cuticula*; and a farther Survey of the Body, as well as an Enquiry into the Symptoms, will shew some scatter'd *Exanthemata* here distinct, however confluent upon the Face.

Having describ'd this *Tumour*, with its *Diagnos-tics*, I think it little material to enlarge farther thereon, much less to take Notice of what the Antients call'd the *alimentary*, and *excrementitious Bile*, or *Choler*, with the several Degrees of the latter, as the *Vitelline*, *Porraceous*, *Æruginous*, being only a Degeneracy of the said Juice or Humour, to a farther Degree, owing to bad Diet, or some Trespas in the other *Non-naturals*, and however subverting the Concoctions, or otherwise polluting,
and

and depraving the *Crafs* of the Blood, laying a Foundation for other morbid States, are not so much concern'd in this, whose *Prognostic* therefore and *Cure* we subjoin thus.

Prognostic.

An *Erysipelas* carries the greatest Danger, when falling upon the more noble Parts, or thereunto adjoining, as the *Head*, or *Face*, the *Neck* and *Breast*, especially, if the Matter chance to return inwards, or is repell'd by some cold *Topic*; as also if the *Inflammation* comes upon some *Wound* or *Fracture*: The true and natural Way of Termination for this *Tumour* being by *Transpiration*; all others hazardous and often dangerous.

Cure.

In the *Cure*, the *Regimen* for *Diet* and the other *Non-naturals* being much alike, or the same with that for the *Phlegmon*, we need not I think enlarge thereon.

Bleeding, however forbid by some, in the true and exquisite *Erysipelas*, is now commonly practised, if the Pulse forbids not, or that there is no Suspicion of Malignity, which frequently occurs in this Disease, as is evident by the *Symptoms* accompanying the *Fever*, such as *Horrors*, *Inquietudes*, *Vigiliae*, and sometimes *Coma's*, *Deliria*, with others of the nervous Kind; in all which the *Fever* it self with the vital Indication are principally to be regarded.

As for *local* or external Application, 'tis beyond Controversy, that we ought to avoid all cold, repelling, or restraining Medicines; but why unctuous of all Kinds, and without Exception of Cases, as they are by some, should be forbidden, I cannot see; nor perhaps shall we find a better, especially upon the remote or extreme Parts, than are the *Ol.* & *Unguent. ex floribus, cum Cortice interiore atque foliis, Sambucip, reparata*; which, by relaxing the *Fibrillæ*, abate the *Tention*, and by their anodyne,

dyne, *discussive* Qualities, breath forth the impacted Humour, and thereby take off the *Pain* and *Inflammation*.

With one or other of these, I have frequently in the like Cases, ordered a little of the *Spir. Vini camphorat.* to be mixed; for such however, who are prejudiced against the Ointment, as also, where the Disease is seated near the Brain, or other noble Parts, a strong Infusion of the *flores Sambuci in camphorated Brandy*, makes an excellent *Epithome* in these Cases; as does the *Decoct. Salviæ cum Saponè Venetò*, directed by *Riverius*; likewise the following, which I have often used with Success.

R_c. *Aq. Calcis Spir. Vini camphorat. ā. ℥ij. Saponis Castil. ℥j. 4. Solutio instar Epithematis utenda, ad Partes inflammatas.*

Instead of the *Aq. Calcis*, I have often substituted that *ex floribus Sambuci*.

And altho' *Bleeding* has, at some Times, in these Cases been disputed, yet is it agreed on all Sides, that towards the Declension of the Disease, *Purgation* with some *Cholagogue* Medicament is absolutely necessary; in which Number *Rhubarb* has the Preference: Likewise after that, *Cassia*, *Tamarinds*, *Mirobalans*, infused or decocted; *Manna* also is allowed by some. The Compounds ready prepar'd, are the *Syr. Ros. solut. de Cichor. cum Rheo. Elect. e. Suc. Rosar. Diapran. simpl. &c.*

These, I say, are to be given and repeated between whiles, after the State; whilst Clysters supply their Place at the Beginning, Increase and Height of the Disease, if attended with an overcostive Body; and through all the several Stages, as we just now remark'd, let the vital Indication

be still in View, and strictly regarded, fortifying the Spirits with proper *Cordials* against any latent Malignity in the Blood, or in Case of the Humour retroceding.

Purging
necessary
upon the
Terminati-
on of an in-
flammato-
ry Disease.

The Necessity of Purgation upon the Conclusion of these *inflammatory Tumours*, and that repeated at proper Intervals, is very evident, and more than a Piece of Formality, as some of our Patients call it, or a Penance unnecessary, if we consider the diseased Habits often left, where this Precaution, more especially, has been slighted, or neglected; arising from the putrid and foul Particles suck'd up in the Circulation, for Want of a sufficient *Despumation* of the Blood, and their Discharge by the late *critical Inflammation* or *Abscess*, still remaining therein. And thus we see daily the dire Effects of the *Small Pox*, *Measles*, *Scarlet Fever*, and other *inflammatory Disorders* of the Blood, falling heavy upon the *Lungs*, and laying the Foundation of a *Pulmonary Phthisis*, or contaminating the *nervous Fluid*, bringing on Convulsions. How many have grown *strumous*, how many hectic, through this Neglect, I need not surely stay to convince you, who have known [doubtless some of you] that the drying up even of a Scab, has had this mischievous Consequence, where due Care has not been taken by proper *Regimen*, particularly *Bleeding* and *Purgation*, to provide against it. But giving one History relating to the Disease in general, that we have been now describing, I shall hasten to the *Oedema*.

HIST. IV. A Butcher in *Spittlefields*, of a full Habit, strong and lusty, after an Evening's Draught as usual, returning Home, was taken suddenly with great Shivering, like the Fit of an *Ague*, upon which he was put to Bed, with some of the Good-women's Medicines, the *Venice Treacle*, or *Milbri-*
date,

date, the Treacle Water also, and Syrup of Saffron, and a Load of Cloaths upon his Breast, to force out a Sweat; under which he had not lain long, before he complain'd of great Pain in his Head, burning Heat, and tingling all about, with violent Vomitings of a bilious Humour, by the Force of his Retching pump'd out of the Duodenum into the Stomach, green as Leeks, from whence that Humour, among the antient Writers, had its Name *Porracea*; and before Morning [so very Acute was this Disease] he grew delirious.

The Apothecary being sent for, perceiv'd a Tumour with Inflammation on the fore and upper Part of the Head, reaching down to the Eyebrows, which were swell'd up so that he could not see, nor lift up the same, the Inflammation still increasing, and extending it self as well downwards over the Nose, and other Parts of the Face, as higher upwards on the Scalp.

He presently let him Blood, and administred a lenitive Potion; the second Day I was called in, and perceived a true Erysipelas upon the Head and Face, the Fever high, great Thirst, Anxiety of Mind, Restlessness of Body, with Oppression on the Præcordia, a fluttering languid Pulse, and Suspiria, or Respiration doubling and interrupted.

Being come to his Senses, as we say, he complain'd of great Pain and Giddiness, with Numbness of his whole Head, attended with Heat, and pricking Pain upon the Parts inflamed.

Upon which, for the Relief of the Brain, and its Meninges, or their Security, in case the peccant Matter should have fallen back upon the same, before it had spent it self by the Pores; I immediately order'd Vesicatories, one large one between the Scapula's, and one behind each Ear, those Emunctories of this noble Part, with the

following *Bole* to be swallow'd every six Hours, taking four or five Spoonfuls likewise of the *Ju-lap* after each, and as many thereof betwixt Whiles, when faint.

R. Conf. Lujul. Pulv. e chel. Canc. C. ā ʒj. Pulv. rad. Rhei ʒʒ. Croci sal. Absinth. ā gr. V. Syr. Limon. q. f. M. f. Bolus.

R. Aq. flor. Sambuci ʒʒ. Aq. Theriacal. stil-lat. ʒiij. Syr. Croci, ʒʒ. M. f. Julapium.

In the Evening he grew again *comatous*, and so continued most Part of the next Day; notwithstanding a plentiful Discharge from his *Blisters*; but his *Pulse* beat strong and high, wherefore I order'd more Blood to be drawn off, which, with the Urine shew'd the greatest Degree of *Inflammability*; the first, after it had stood some time, appearing with a *viscid, yellow, sily Film*, of great Thickness, with a *Serum* near resembling the Colour of *Bile*: The latter much of the same Complexion, being tinged or saturated with the like Salts. After this I directed two more *Blisters* on the in-side of the Arms, with *Leeches* to his Temples, and for a farther Revulsion of the Humour from his Head, the following Clyster, notwithstanding the *Rhubarb* in his Boles had procured him a Stool or two before.

R. Decoct. com. pro Clyst. ʒxij. Mel. Mercurial. Syr. viol. ā ʒij. Spec. Hier. Pic. Sal. Fem. ā ʒj. M. f. Enema injiciendum circa Vesper.

For the Head and Face, I directed a *Fomentation ex Decocto Fol. Salviæ cum Flor. Sambuci*, adding, when the same was taken from the Fire, a small Quantity of the *Spir. Vin. Cam.* this being applied

applied with Flannels express'd from the hot Liquor, for some time, a kind of *Lixivium*, made after the following manner, was, with a fine Rag dip'd in the warm Mixture, gently rubbed all over the Head and Face, which made Way for the Razor also to pass gently over the Scalp, and laid all in View, that was before conceal'd by the Hair upon the same:

R_x. *Aq. Flor. Sambuci, Spir. vini Camphorat. ā ʒij. Saponis Castil. tenuiter incisi, & in eadem Mixture tepefacta soluti, ʒj. M.*

After the Head thus shaved, I fomented and gently went over the *Scalp*, which was much tumefied by the Afflux of Humour, with the Rag moistned, as before; the *Boles* with the *Pulv. Rhubarb.* were likewise continued, with the Addition of a few Grains of *Sal nitri*, not only to contemperate the Heat and *Effervescence* of the outrageous *Bile*, but to take off a *Strangury* attending the last *Vesicatories*. To assuage and farther ease this Complaint, I directed also an Emulsion, thus:

R_x. *Sem. 4^r fr. Maj. ā ʒj. Sem. Papav. alb. ʒij. Amygd. d. decort. n^o vij. vel viij. Contusis Affunde Aq. Hord. [in qua ʒʒ. Gum. Arabic. fuerit soluta,] ℥j. ʒ. Colaturæ, adde Aq. Cinam. Hord. Pæon. C. ā. ʒj. ʒ. Sacch. Chrystal. q. s. & fiat Emulsio, de qua bibat Haustulum in Intervallis.*

The next Day after, the *Tumour* began to subside upon the *Fore-head* and *Eye-lids*, one of which he could now open, as likewise on the *Vertex* or Top of the Head; but increas'd towards the *Occiput*, falling behind upon the Neck, as also on his *Jaws* and *Throat*, quite down to the *Clavi-*

culæ forwards, which latter Parts I bathed with the *Soap-mixture*, melting down about a third Part of the *Unguent. Sambucin.* therewith, continuing the *Fomentation* still to the upper Parts. But on the right superior *Palpebra*, the *Tumour* still continued; in the midst of which, the Humour, by its corrosive Quality, had form'd a Sort of Crust, as from a *Burn*, under which, digesting off the out-side; there lay a *Slough*, so thick, as that I was fearful it had penetrated quite through; but strowing in a little of the *Præcipit. rub.* very thin, and laying down a soft Dossil dip'd in the warm *Liniment*, with a little *Bals. Terebinth.* admix'd, the same after three or four Days cast off, leaving the inner *Tunicle* uncorrupted; which, whilst we were *incarning*, a small *Sinus* was discover'd running outwards towards the *Temple*, which was laid open with the *Scissars*, and soon after heal'd with the other Cavity, by the same Applications. Yet still the Eye-lid remained almost closed, which made me somewhat doubtful, that the *Elevator Palpebræ* had suffer'd by the Accident, and the same might be obstructed in its raising up the Lid; but some time after, when the Fluxion was entirely taken off, the said Part recovering its Strength, perform'd its Office as usual.

The *Stupor* and *Head-ach* now remitting together with his *Fever*, and the *Cuticula* beginning to peel off about his *Face*, the *Inflammation* having every where pass'd its State, I order'd the following *Potion* to be repeated every other Day, for two or three times; whilst in the intermediate, he still continued his *Rhubarb Boles*, which kept his Body in good Order, being otherwise subject to be over-costive.

R. Rad.

Sect. I. *Of an Erysipelas.*

R. Rad. Rhei tenuiter incis. Fol. Senæ ā ʒj.
Tamarind. ʒʒ. Sal Tart. ʒj. Coque leniter in aq.
f. q. f. pro Colaturæ ʒiij. cui adde Syr. Ros. so-
lut. ʒj. M. f. Potio.

To encourage the working of this, if Occa-
 sion offer'd, he was order'd to drink a Draught
 of *Epsom Water* turn'd into a Whey with *Milk*,
 in a Quart of which ʒj. of *Manna* was dissolved,
 to be repeated instead of Posset-Drink, or Grewel,
 which, together with the *Potion*, gave him each
 Day five or six Stools.

After the first *Purge*, he grew manifestly ea-
 sier, altho some little Remains of a feverish Heat
 continued, for which he drank his *Emulsion* on
 those Days that he forbore his Purgings; and
 which together therewith, quickly after com-
 pleted his Recovery from the imminent Dan-
 ger he thus escap'd, being through the whole
 Course kept low as to his Diet and Liquors;
 the former consisting principally of his *Oatmeal*
 and *Barley Grewels*, with small *Chicken Broath*,
 while the latter was *Sack-whey*, *Sage-Tea*, and
 the *Emulsion* above-mention'd; a *Pearl Julap*
 being in Readiness with some Drops of *Sal vol.*
oleos. to keep up his Spirits when depress'd or
 fainting.

Of the O E D E M A.

As *Choler* was said to be of the foregoing Tu- Oedema is
 mour, so *Pblegm* by the Antients is called the Mo- Definition
 ther of this, which is the third of their general and Cause.
Tumours.

Of this *Pblegm*, they make also a natural and
 excrementitious, subdividing the latter into an acid,

salt, and *vitreous*; but these Distinctions, as of little Use to us in our Account of the *Oedema* we pass by, deriving the Source thereof from a *pituitous*, *lentous*, or as we may say, *ropy Serum* in the *Blood*, so made either by a *gross*, *viscous*, or *indigestible Nutriment*, or through *Want of Exercise*, like the *stagnant Waters* growing *putrid and slimy*. Thus nothing is more common after *Fractures*, especially of the *Leg*, even in a *sanguine Temperament*, so called, than to have an *Oedematous Tumour* fall upon the *Foot*; which is partly owing to a want of due *Tention* in the *Fibres* from their now *inactive State*, by which their *tomic Motion* being *slackned*, they are much less able to assist the *Protrusion* of the *circulating Fluid*; and partly to the *Bandage* used for securing the *Fracture*, which tho' not so *streight*, as to give a *Stop* to the *Circulation* through the *large Canals*, yet must needs retard the *Motion* of the *Juices*, through the *smaller Tubuli*, and lay a *Foundation* for the *Tumour* we are now speaking of.

Which may be farther defined, *a cold, pituitous, white Swelling*, or of the same *Colour* with the other *Parts*, of *dull Sense*, easily giving *Way* to an *Impression* from the *Fingers*, but not presently, [as in the two foregoing] again returning; the *Impression* longer remaining, like that made on a *Piece of Dough*, to which the *Parts* therewith affected, are often liken'd.

Nor let any one wonder, that we make the *Solids* equally concern'd with the *Fluids*, as they are generally in these *congested and chronical Tumours*; since we find that *gentle Friction*, and where the *Case* will allow, *strong rubbing* of the *Parts*, and *Exercise* of the same, so far as they are capable, with whatever of the like *Kind*, restores
their

their relaxed and enfeebled Spring, enables them very much to contract and push forward the sluggish Humour, that annoys them.

As to the *Prognostic* of this Tumour, an Oedema, that *Prognostic* is occasion'd by the *Bandage*, as in *fractur'd Limbs*, is usually more troublesome than dangerous; but in those arising from the impoverish'd State of the Blood, in the Winter Season, in gross fat Bodies, in antient People, whose natural Heat is weak and decayed, or if attended with a *Dropsy*, where the same is in Danger of being extinguish'd, and a *Gangrene* to ensue, there is under these Circumstances much more Danger.

The natural Way of Termination for this Tumour is by *Resolution*, or being *discuss'd*, all others troublesome and hazardous.

In the *Cure*, the *Physical* Prescription will be *Cure*. found equally necessary with the *topical* Application; by the *first*, to purge off the *pituitous* Humour, and in the Intervals thereof to mend the *Cachectic* State of the Blood; by the *latter*, to discuss the said Humours impacted on the Parts, and to strengthen the *Muscular Fibres*, that they may not be liable to an *After-Congestion* of the like.

As to *Bleeding*, unless in some particular Cases, where there is *Plethora*, it is disallow'd in these Sorts of *Diseases*, as rather weakening the *Crafs* of the Blood, diminishing the native Heat, already too much impair'd in the diseased Part, and increasing the *serous* Humours abounding therein; but *Purgation*, as already remark'd, must take Place at due Intervals, especially such *Purges* as are prepar'd from proper *Phlegmagogues*, so denominated, among which are numbred the *Rad. Turbith Agarici*, also the *Hermodactyli*, and *Sem. Carthami*.

The Medicines ready compounded of this Kind in the Shops, are the *Pil. Cochiae*, both *maiores* & *minores*, *Pil. de Agarico. de Hermodac-*

tylis. Pil. fœtidæ Stomach. cum Gum. Aloëphanginæ, as also the *Tinctura sacra*, which is a most excellent Medicine for this Purpose, purging off the *Cachexy*, invigorating the *Blood*, and fortifying the Concoction.

Some Pur-
gatives pre-
ferable to
others.

And here perhaps it may not be amiss for us to observe, that as in the *Erysipelas*, we proposed some peculiar Medicines, which, from their Faculty of purging the *bilious Humour*, we called *Cholagogues*; And in this, others, we name *Phlegmagogues*, for to carry off the *pituitous*, through the same common Passages; we would not have it thought, that there was any Power of *Election* in the Medicine, when got into the *Blood*, to search for, and find out one certain Humour, passing by the rest; but that one by the Make and Texture of Parts, being therewith mixed, is better fitted to disentangle some certain Particles, than another, *whether by breaking the Globules of the Blood immediately, dissolving its Mass, and precipitating the Contents; or by their Stimuli provoking the intestinal Fibres, and altering their glandular Secretion, or what other Ways unknown to us, is less material*, since we know it is Fact. Let the curious upon this Head, among others, refer to what the learned Dr. *Willis* in his *Pharmaceutica Rationalis*, has discoursed; or, if not satisfied with less, the late *Mathematical Writers* in this Science, whilst we proceed. With any of the foregoing *Pills*, ʒj. of *Calomel.*, or the *Mercurius dulcis*, may be mix'd with very good Advantage, which is found to have a Power of dissolving those Viscidities in the *Blood*, and to purge off the *phlegmatic Humours* therein redundant beyond all others.

During the Use of these, the Surgeon must foment the *Tumour* with some powerfully discutient

tient Fomentation, prepar'd from some of the Plants we observed in our Discourse of the *Phlegmon* and *Gangrene*, to which, for greater Efficacy, may be added a due Proportion of *Sulphur vivum*, and *Alumen*; as an Ounce of the former with a quarter of an Ounce of the latter, for each Quart of the same; not forgetting the *camphorated Spirits* to be pour'd in, upon taking the same from the Fire. After an Hour, Night and Morning, spent in this Exercise by a Servant rightly instructed for the Work, you may roll on a hot *Stupb* express'd from the said Liquor, with a dry Flanel over it, to keep in the Heat: Before the Use of which, it may be of farther Service to rub the Part affected before the Fire, either with a *Flesh-Brush*, or a Hair-Cloth, if the same can be suffer'd; otherwise a hot Flannel, which will conduce towards breaking the stagnating Juices, and set open the *Pores* for the easier breathing of the same forth by the *discussient* Fomentation aforesaid.

And thus finding the *Tumour* to lessen, you need foment only once a Day, and that in the Evening, putting your Patient, presently after, into his warm Bed; and between your Times of fomenting, apply some warm *discussive Emplaster*, which is preferable to the Form of *Cataplasme*, in these Affects, of equal parts of the *Empl. de Bac. Laur.* and the *Stiptic. Paracelsi*, rolling on the same.

When the Skin begins farther to relax and wrinkle, you may add some suitable *Restringent*, or increase the Quantity of the *Alumen* in the Decoction for your *Fotus*, by which the *Fibres* may be enabled to contract, to recover their *Tensity* or *Elastic Force*; or you may endeavour to scatter the Remains by the Plaster above directed,

rected, and an equally streight *Bandage*, beginning from below, and proceeding upwards. But truly I must confess, I never could see a *Roller*, how dexterously soever manag'd, afford that Help in these Cases, as the other *laced* Contrivances I mention'd formerly, which are exceedingly commodious for dispersing the *Congested Humour*, to keep off any new Inflowings of the like, and to strengthen the whole Limb.

Nor will it seem a *Paradox*, that I propose *Bandage* to remove a Disease, I hinted above, was promoted by *Bandage*; since by this latter, the Compression was made only about the *Fracture*, the Parts both above and below being in the mean while at Liberty to puff up and swell, as they do frequently upon these Accidents: But the *Bandage* we propose for removing it, is to comprehend the whole Member, beginning at the Extremity, and either *rolling*, or *lacing* equally from the *Toes*, up to the *Knee*, if the Disease affect the *Foot* or *Leg*, and from the *Fingers* to the *Shoulder*, if on the *Hand* or *Arm*.

If the *Tumour* ariseth from an internal Cause, having no Accident of *Wound*, *Ulcer*, *Fracture*, or *Contusion*, which first gave Rise to it, as in some *Phlegmatic*, or if you please, *Leuco Phlegmatic* Tempers, it sometimes falls out; the Method of Cure is much the same; but here particularly, the *pituitous Cacochymy* is more frequently to be purged, with suitable *Cathartics*, as just now mention'd, whilst the *Crafsis* of the Blood is betwixt Whiles confirm'd and strengthened; for which End the *bitter Stomachics*, also *Chalybeates*, both *Wines* and *Electuaries*, with whatever may conduce by their *spirituous* and *springy Parts* to warm, invigorate, and strengthen the languid Mass, to dry up the superfluous Serum, and
restore

restore the enfeebled Tone of the Fibres, are very serviceable.

For the farther disburthening the Limb of the Load of Humour therein aggested, there have been several Inventions for sweating only the diseased Part, as by *hot Bricks wrapt up in Flannels*, or *Bottles of hot Water immediately placed round the same*; also by *putting the Limb into a Bed of Horse Dung, an Ox's Paunch newly exenterated, hot Grains or Sand.*

To the same Intention, *I have seen likewise an Engine made to comprehend an Arm or Leg, and by Spirits burned just by, such a Heat has been conveyed to the same, as was thought proper.*

One of these was made use of by the late King *William*, on account of his *Oedematous* or rather *Anasarcaus* Legs.

Now, where the *Tumour* is owing to an Accident from without, and the Habit of Body otherwise in good Condition, these Experiments may possibly be made with Advantage, if the Humours are therein so impacted, as not to admit of *Resolution* by the other Method of *Fomenting*; but will scarce avail, where there is a Redundancy of the *Pituita* in the whole Habit, or where the same is clog'd and stuff'd with a *Serous Illuvies*: When instead of sweating a particular Part, a gentle *Diaphoresis* of the whole, if the Strength allows, will be more profitable, promoted especially by warm Draughts of the *Decoctum Ligni Guajaci*, the Patient being well cover'd, and his Body some time after defended from the cold Air.

Thus the sluggish Humour attenuated is more easily cast out through the *Pores*; when afterwards, to dry up what remains, there is scarce a better Remedy to be found than the said *Decoction*

coction *dietetically* pursued for some Time: Or, till the Disease is conquer'd, observing through the whole Course of the same, a strict drying *Diet*, prepared of Meats easily digested, rather roast than boil'd: The like *Regimen* or Government being here requisite, as for those coming out of a *Salivation*. Let their *Sleep* be moderate, by all Means avoiding *Noon-day Naps*, or after Dinner Slumberings, which tend as much as any thing, to fill the Blood with a Load of crude and indigested *Chyle*, and consequently still farther to heap up the Obstructions. Let the *Air* be made warm, in the Winter-time, by a good Fire, and the Body kept dry; remembring above all Things, that as much *Exercise* is used, as the Weakness of the Constitution and the diseased Limb will allow; which, if so great as to confine the Sick to the House, being neither able to walk nor ride, as supposing the Distemper seated on the *Leg*, let the same be often bent and stretch'd out at a proper Distance, after a *Fracture* or *Dislocation*, if any such preceded: The *Arm* in like manner, for which many useful *manual Operations* may be contrived to keep the same in Action between whiles, which as much, perhaps more than any thing besides, conduce to open the obstructed Tubes, and to invigorate the *muscular Fibres*, as Dr. Fuller, in his *Medicina Gymnastica*, has plainly evinced.

Where nothing of this Motion or Exercise can be put in Practice, gentle Rubbing is to supply the Place, as we have already observed.

After all, if the Patient's Circumstances will admit, and other Methods fail, he may try the *sulphureous Waters* at *Bath*, the Body being duly prepared for the same; which, together with the Use of the *Pump* upon the Part affected, have wrought

wrought the most remarkable Cures of this kind. And this shall finish our Account of the *Oedema*, unless we subjoin one History of a Case, with this farther Remark, That as the *Tumour* happens to partake of the other inflammatory ones, it is thence denominated *Phlegmonodes*, *Erysipelatodes*, or if more indurated, *Schirrodes*, as was noticed formerly of the *Phlegmon*; and accordingly requires the Applications to be more or less hot, *discutient*, *emollient*, or *restringent*. Thus the less compounded it is, especially with the two former, the hotter and more *discutient* must be the Application; if partaking thereof, the milder will suffice. In the *Schirrodes*, the *Discutients* are to be mixed with *Emollients* instead of the *Restringents*, which are here altogether omitted or left out: The same Regard being had to the others in like manner complicated; still suiting your Medicaments to the Nature of the Disease, and Humour offending, as *Reason* shall best dictate.

An *antient Gentleman*, of a middle State, or HIST. V. rather still inclining to Corpulency, having labour'd long Time under an *oedematous Tumour* of one of his Legs and Foot, and thereby rendred incapable of Action, as he was wont, consulted me; who in order to his Relief, directed the following *Regimen*.

First of all, for his Limb, I gave Orders that his Servant should, Night and Morning, bestow half an Hour with the *Flesh-Brush*, to rouse the Heat, naturally very languid, in a Person so far advanced in Years, and dispose the *pituitous Humour* obstructing the Passages, to a Dissipation or insensible Perspiration: After which, in the Place of a *Fomentation*, under the Use whereof he said he had formerly got Cold, and received no Benefit, I order'd the whole Limb to be en-
wrapped

wrapped with a *Cerate*, *ex part. æq. Empl. de Bac. Laur. & Paracelsi*; rolling moderately streight with an equal *Bandage*.

Secondly, For strenghtning the *Tone* of his Blood, and promoting an Expansion of the Spirits, that might assist the *oscillatory Motion* of the *Fibres*, in thrusting forward the viscous Fluid through their *Tubuli*, I prescribed the following Course to be prosecuted for a Month at least.

℞ *Consf. Absinth. rom. Cochleariæ hortens. ā ʒj. Consf. Anthos ʒʒ. Nuc. Mosc. condit. ʒij. Pulv. Rad. Ari. C. ʒiij. Spec. Diamb. pp. ʒj. Syr. E. Conditura ZZ^{ris}. q. s. ut ejusdem ope reducatur ad Consistentiam Electuarii. de quo Capiat Quant. N. Mosc. Maj. Mane & v^a pom. superbibendo Coch. iv. vel v. Vini sequentis Medicati.*

℞ *Summit. Absinth. rom. ʒʒ. Cort. Aurant. exterioris ficc. ʒij. rad. Gent. Galang. Zedoar. Sem. Cardamom. min. decort. ā ʒj. incisa ac contusa Infundentur frigidè per biduum in vini Hispanici opt. ℥j. dein decantetur Vinum absolutè clarum, & reservetur ad usum.*

Finding him incapable of any other Evacuation, especially the stronger, by the common *Hydragogues*, in order to a more gentle one *per ἐπιεργασίαν*, such as should at the same Time strengthen and fortify *Digestion*, I order'd ℥ʒ. of the *Tinctura sacra*, to be taken, two Spoonfuls, going to Rest, every Night, or each other, according to the Operation, which gave him usually a physical Stool next Morning. In the Intervals betwixt his *Wine* and *Electuary*, once at least, if not twice, he drank a Draught of the following Decoction by way of *Diet-Drink*.

℞ *Sco-*

℞ Scobis Lign. Guaji ac Cort. ejusdem ā ʒ℞.
 rad. Liquirit. Rasur. Sassafras, Santal. rub. ac Sem.
 Coriandr. ā ʒij. infunde super Cineres calidos in aq.
 f. ℥iv. postea ad Medias Coque, sub finem Coctionis
 adde Vini albi ℥℞. & per subsidentiam depurat.
 Coletur, bibendo Haustulum Colaturæ ejusdem se-
 mel saltem, si non bis, in Die, temporibus Electu-
 arii ac Vini Medicati intermediis.

I forbad him Spoon-meats, but allow'd the Liberty of indulging his Appetite with Flesh, altho' a little season'd, provided the same was thoroughly roasted, and taken only at his Dinner, with which he drank half a Pint of good strong Wine. For his Breakfast and Supper, instead of dry Biscuit, which he had not Teeth to manage, he had a light *Manchet*, or Bread prepared with some carminative Seeds, of which he took a Slice, and one Glas of Wine after.

During this, I order'd he should use what Exercise he could, by the Assistance of his Crutches, or the Help of his Servants, walking round his Garden three or four Times a Day : When before he had prosecuted this Method full out three Weeks, he perceived this vast Tumour very sensibly diminish'd; and before the Month was up, he was able to put on a Shoe he had worn formerly, but which for many Months past, he could not get on by Reason thereof : However, discontinuing his *Regimen* for a few Weeks, notwithstanding this hopeful Prospect, and indulging himself again in his *Easy-Chair*, without stirring from the same, unless to his Bed, the Swelling, which never entirely disappear'd, return'd again; a plain Indication that the *Lamp*, it was to be feared, would now no longer burn out bright, than this new and artificial *Par-*
bulum,

bulum was supplied by Medicines. Upon which I was again advised with, when finding his Chest free and open, without any *Asthmatic* Symptom, or seeming Obstruction in the *Viscera* of any kind, but breathing well, and taking his Nourishment in good Order ; I repeated the *Tinctura sacra* for two or three Days successively, then directed a *freight Stocking* to be moderately laced on, thereby purposing to restrain any farther Congestion of the *pituitous* Humour, and to strengthen the Limb, so as that he might again betake himself to his stirring about, and thereby keep under such Accumulation. His *Electuary*, with little Variation, and his *medicated Wine*, or *stomachic Tincture* [to each Pint of which were now added two Ounces of the *Vinum Chalibatum*] were afresh prescribed, his *Guajac Diet* having been still prosecuted.

When he had worn his *Stocking* about a Week or ten Days, he gained every Day upon his *Lace*, and grew stronger on his lame Side ; but the Swelling being restrained upon the *Leg*, appeared upon the *Thigh*, which still encreasing, I order'd the same Work-woman to set a *Knee-piece* and *half Trowse* to the *Stocking*. Which so fully answer'd our Design, that coming to ride often in a Coach, and to move about his House, he got Strength enough quickly after to fling away his *Crutch*, and by the Assistance of his Cane only, to walk about as nimbly as he had done twenty Years past ; his Limbs appearing Fellows, and his Distemper quite subdued, to the Surprise of his Acquaintance, who before had given him up to his *Fire-side*, as expecting after so long a Confinement, and under the Burthen of old Age, he was scarce like to come out again.

A Year

A Year after I met him accidentally in my Walks, with a hale florid Complexion, brisk and lively, as if from the Time I left him, he had renew'd his Lease. He told me, That since I saw him, he had taken a Journey to the *Bath*, and drank those Waters with great Advantage, but used neither *Pump* nor *Bathing*, against which he was prudently cautioned by some *Bath Physicians*.

It may be thought by some, I was too rash in recommending the *Stocking* and *Trowse* in so antient a Person, and that the *pituitous Humours* being here suppress'd in the more natural Part for their Reception, might have return'd upon the *Lungs*, and hazarded Suffocation, or into the *Belly*, giving Rise to some more dangerous Obstruction.

In answer to this, I did before observe, that our Patient was no way incommoded with any Difficulty of Breathing, nor disposed to any Species of a *Dropsy*, neither *ascitical* nor *anasarcous* elsewhere; nor should I have confided in the *Stocking* alone upon any Account, without attenuating the *phlegmatic Matter*, *concocting the crude Juices*, *warming and invigorating the whole Mass of the Fluids*, *strengthening the Tone of the Fibres*, and giving as it were new Life and Vigour to all the Parts, by the internal Regimen, to which through the whole Course I strictly kept him.

Of a SCHIRRUS.

We come now to the last of the four General Tumours, the *Schirrus*: And this the antient Writers will have to be the Off-spring of *Melancholy*.

What this *Melancholy* is, if they mean other thereby than a gross, heavy, and lumpish Mass of Blood, whose active Principles being subjugated, the passive or earthy, as a *Caput mort.* remain only behind, we cannot easily comprehend.

Of this *Melancholy*, as of the rest of the *Humours*, they make more than one; being several Degrees of *Adustion* in the *bilious Juice*, till the same degenerate into an *Atra Bilis*, as they express themselves. But I shall not stay to enlarge upon the Opinion of the Antients, concerning this *Humour*, any more than the others; since later Accounts, as we formerly observed, of the *Animal Oeconomy*, its several *Secretions*, together with that of the Nutrition of the Parts, have set these Matters in a better Light.

Cause.

This *Tumour* then may arise, for any thing appearing to the contrary, as well from the Debility or Weakness of the Parts it happens to possess, occasioned by some outward Violence offered thereunto, as from the Nature it self, or Grossness of Parts in the Humour therein deposited: For when, by such Accident, the Texture of the *Fibres* is broke, or somehow interrupted, relaxed, and their Tone thereby vitiated and depraved, the extravasated Liquor not finding a Passage by the compressed *Tubes*, indurates in a little Time about the Interstices and Extremities of those *Fibres* [in like manner as the *Callus*, at those of a broken Bone, which is nothing but the nutritious Particles shed out of the ruptur'd Parts, and hardening quickly after they are thus spilled, all round, like a *Gluten*, or strong Cement] where, according to its Nature, it lies quiet, or creates Disturbance, as we shall see presently.

Its

Its Prognostic may be infer'd from the Nature *Prognostic.* of the impacted Humour, in it self more or less benign; the Appearance of the Knot it self; the Sense of the same, and above all, the Habit of the Body. Thus, if the extravasated Juice be mild in its own Nature, if the Induration be even or smooth, and equal all round, have little Pain, or be altogether indolent, and the Constitution well temper'd, or in a good Habit of Body, there may be no Danger: But on the other Hand, if the stagnating Humours have contracted any malignant or corrosive Quality; if the Tumour be unequally hard, with pricking Pains accompanying, and the Temperament inclin'd to Melancholy, as in the Saturnine Constitutions, or the Blood polluted with cacochymic Juices, there is great Cause to fear its Degeneracy into a Cancer.

I know there are those who derive this Humour from some fixed Salts in the Blood, thrown out as a Tartar to the Sides of the Cask, or laid aside by Precipitation, like the Lees at the Bottom: But this being a Simily borrow'd by fanciful Persons, from the several States of Wine under Fermentation, with which, I think, the Analogy will not hold in our Case, I shall pass the same without any Comment, and distinguish this Disease not only into a true and perfect, but into an original and secondary Schirrus.

The first of these we define a hard and often fixed Tumour, of uncertain Magnitude in its Progress, and scarce observed at its first Appearance, at least-wise over-look'd, attended with equal Hardness, little or no Pain, and usually as little Change of Colour in the Skin, if it lie especially somewhat deep among the Muscles, to whose Membranes it is generally fastned; or if more superficial, a dusky Colour is perhaps discoverable.

Cure.

In the *Cure* whereof, we are to call in Aid also from *Physic*, as well as *Surgery*: The *former* to cleanse away the fæculent Humour, to edulcorate the sower Juices in the Blood, disposed for Coagulation, and to reſerate or open the obſtructed Channels, that the Circulation may be regularly carried on in all Parts of the Body; the *latter* to mollify or ſoften the Induration, and after to diſcuſs and diſſipate the Humours heaped up in the Part.

For theſe Ends, *Bleeding*, under the ſame Proviſo as in the laſt-mentioned, may be allow'd, whilſt *Purging* muſt be repeated at proper Intervals, with ſome of the ſame *Cathartics*; alſo the *Decoctum Senæ*, *Polypodii*, *Epithymi*, *Ellebori nigri*, to which laſt our *Physic Writers* have aſcribed a particular Faculty of purging the *melancholy Humour*, which they ſay gives Riſe to this *Tumour*, and accordingly have given them all the Name of *Melanagogues*.

In the Intervals of this *Purging*, the Patient may be put into a gentle Breathing for an Hour or two before he riſes, with a *Bole* of *Antimon. Diaphoret. Bezoard. Min. Cinnab. Antimon.* or the common *Theriaca*; but the *Cinnabar*, I muſt confeſs, I prefer before the other, as not only exciting a free Perſpiration, but by correcting the Acidity of the Blood, and diſſolving all *Viſcoſity* therein, it becomes a good *Deobſtruent*, here required: For the ſame End likewise, and with great Benefit, *Calomelanos* is now alſo preſcribed, with a Decoction of the *Woods*, more particularly *Guajac.* as a *Diet.* obſerving the ſame *Regimen* in the *Non-naturals*, as for the *Oedema* was directed.

During the Uſe of theſe, the Surgeon muſt endeavour to relax the indurated Part, by an
emollient

emollient Cataplasma; which *Form*, tho' I thought not so suitable as some others in the former *Tumour*, yet is in this doubtless more agreeable; serving not only by the kindly Warmth, with which it ought to be applied; to set open the *Pores*, but by as gentle *Humidity*, relaxing the *Fibres*, and softning the *Induration*.

For this Purpose may be directed the *Rad. Alb. Bryon. Lil. alb. Fol. Verbasci, Malvæ, Parietar. Mercurialis, Brancæ Ursinæ, Lauri, Hyoscyami. Flor. Chamomel. Melilot. Sambuc. Sem. Lini Fœnugr.*

These, fewer or more, may be boiled in Milk and pulped, adding thereto a small Proportion of the *Butyrum recens*, or instead thereof the *Axungia's* or *Adipes*; such are the *Adeps Anseris, Gallinæ*, but beyond all others, the *Axungia humana*, if we may credit some of our Authors.

Where the Tumour is so seated, as that the Pultis cannot handsomely be retained, you may substitute the *Empl. de Mucilag. cum Margine adhæsivo*; and when you find the Hardness give way, the *Empl. de Ammoniac.* either *cum, vel sine Cicuta.*

For this Purpose it has been likewise customary to sprinkle the strongest Vinegar upon a hot Iron or Fire-stone, and to let the Steam thereof ascend against the diseased Part. This, by its Subtily and Force of Penetration, oftentimes divides the gross impacted Humour, disposing the same after to Discussion, under one or the other of the *gummy Emplasters* afore-mentioned.

There is another perfect and *true Schirrus*, so absolutely hard, and so indolent withal, as neither to admit, or stand in need of Cure; being fix'd to the Parts adjacent, and giving no Disturbance, making only a *Morbus*, as Mr. Wiseman

man I think has it, or rather *Nomen simplex Morbi*, as I chuse rather to call it, *in numeris partium*.

Some of these we meet with frequently in the Face, and other Parts, with Hairs growing upon them; the common People call them *Moles*. *Warts* also and *Corns*, by the *Latins* named *Verrucae* and *Glavi*, come, I think, or at least may be brought, under the Name of *Schirruli*.

Of some Affinity, tho' remoter Kindred, are likewise some of the *Fancy Marks*, or Stamps of the pregnant Woman's *Imagination* upon the *Fetus* in her Womb; most of which, if let alone, or not tampered with, remain quiet; but if disturbed, prove often troublesome, and sometimes like the *malign Schirri*, grow outrageous. Of these you will meet with many remarkable Examples, in my Treatise *De Morbis Cutaneis*.

That which I call the *secondary Schirrus*, is very commonly the Effect of ill *Chirurgery*: For when by the Use of some powerful *Discutients*, without *Emollients* to prepare the gross and phlegmatic Humours for this way of Discharge, it happens that the more subtile and tenuious Particles are only perspired and dissipated; what remains incapable of being thus dispersed, must necessarily fix and indurate upon the Place.

Again, when these Humours happen to extravasate, and are by their Stay, altho' but for a while, incapable of returning into their forsaken Channels, or are improperly treated with *restringent* or *repercutient* Medicines; they very often here take up their Abode, and form a *Schirrus*. In removing of which, the like Method taking Place, tho' surely not so strict a *Regimen* as for the Disease *primarily* produced, we shall finish also our Account of this Tumour (subjoining a History

History thereto belonging, as in the foregoing, and also many, if not all of the following, we shall observe to do) with this ensuing Caution, which will farther confirm the *Prognostic* we have already made thereof, and direct the young Practitioner how to behave himself, when such Cases present. Which is this :

That altho' the *Schirrus*, in a good Habit, as *Caution.* we have already remark'd, which is perfectly hard, and even indolent, giving no Disturbance, may be accompanied with no Danger : Yet if the same feel unequally hard, looks livid, with the Veins black and turgid about the same, especially when attended with pricking darting Pains, the best Way for him will be not to meddle with it : For those *Schirri* are very apt to degenerate into *Cancers* : *Latet Anguis hic.* You will soon find that your *Discussients*, and *Emollients* too, will but exasperate and enrage the Malady ; wherefore I shall fix the same Inscription over this kind of *Schirrus* for a Caution to young Surgeons, as the Traveller, for the Security of other Passengers, over a Den : *Apage, mi Amice, requiescat Leo, nam nunc dormit : Cave tu, ne illum expergescias.*

A Gentlewoman then young, but since married, and a Mother of several Children, sent for me to advise her what she should do about a Swelling in her Breast, which I perceived to lie separate, tho' contiguous, in three distinct Knots, very hard and indolent, at the lower Part thereof, each about the Bigness of a Walnut ; and taking a more particular Observation, I found by some Scars under the inferiour *Maxilla*, that certain Glands there seated, had formerly apostemated ; as also upon one of her Fingers there appeared at that Time a *strumous* Swelling, from

Hist. VI.

whence suspecting some Juice of the like Kind, here also coagulated, I gave my Opinion that these Swellings partook of the same Leaven, or Ferment, that they might come under the milder Denomination of a *Schirrus*; and that if she and her Friends thought fit, they might be safely cut out, tho' as they lay, I could not see that they were likely, at least at present, to give her any Disturbance. But their Thoughts turning all upon a *Cancer*, they were desirous I should give Mr. *Bernard* a Meeting, and to have his Opinion, who accordingly met me the next Day; and seeming doubtful of the Consequence in Time, tho' at present they lay quiet, he proposed by way of preventing farther Mischiefe, rather I think than Cure, a *Sarsa* Diet-Drink; to purge with *Calomelanos* between whites, and to take the *Millepedes*, either prepared, or in Expression, which last is certainly much preferable; as also by reason of a too sparing and irregular Flux of her *καταμηνια*, some Pills *ex Ammoniaco, Galbano atque Myrrha*, to be taken three or four Days before the usual Time of their Eruption.

Which Method, when she had strictly prosecuted for three Months, at some Expence, but without any Alteration; it was my Advice, that she might throw off her *Regimen*, and live no longer *physically*, that is *miserably*, but prudently take her Food of Meats easily concocted, with agreeable Diversion, and above all, giving her Breast Liberty, to forbear handling it herself, or admitting others so to do; to discontinue likewise all outward Application to the same; by which I told her, I was really of Opinion, and gave her all Encouragement to believe so, that she would hear no more of it for the Time coming, than she had for some Years past: Which accordingly

accordingly has proved true ; for notwithstanding her Marrying, bearing Children, at which Times there was great Affluence of Milk, tho' she never suckled, as I had dissuaded ; and being since, thro' Misfortunes, reduced to streight Circumstances, by which there was great Reason to suspect, that thro' *Melancholy*, and Cares of the World coming on, she might have farther sower'd the Juices of her Blood, and heightened the Disorder ; yet, in a Course of fifteen or sixteen Years, through the various Scenes of Life, the *Schirrus* is still the same, hard like so many Stones, and senseless.

A Gentlewoman between twenty and thirty, Hist. VII.
ευρανη ♂, or inclining to a full Habit, by want of Exercise, and too great Indulgence otherways, falling into a *Cachexy*, or contracting an ill Habit of Body, some Months after her Lying-in, and the Return likewise of her Milk, perceiving one of her Breasts growing hard and painful, consulted first of all her Midwife, who order'd her a Plaister ; but that nothing availing, an Ointment, also Pultises of several Kinds: But the Disease increasing, or the Breast growing bigger, harder, and more painful, she sent for me.

I perceived the whole Breast, without any Distinction of the *Glandules*, like one entire hard Body, all round, but moveable upon the Ribs, very painful, and a little inflamed.

Being something doubtful of the Issue, I told her plainly, the best I could expect, was likely to be some stubborn *Abscess*, or *Apostemation* very deep ; but I could not warrant it would not degenerate into somewhat worse: Upon which, suspecting I meant a *Cancer*, she and her Relations put the Question home to me ; when I
told

told them plainly, that had there not, for some Months past, been Milk therein, I should be jealous it might prove so; but tho' I had been often troubled to get some such cured, yet I could not say that I ever knew a Tumour from Milk, degenerating into that Disease. However, they themselves inferring from what I said, that I thought the Case disputable, Mr. *Blondell* was called in the same Evening to consult with me; who, after mature Deliberation, declin'd, as I had done, to deliver absolutely his Thoughts in the Way of a *Prognostic*; leaving the Case a little doubtful, but encouraging the Patient to hope the best.

We both agreed to attempt resolving the *Induration*, and soften the same by a Plaister of the *Mucilages*, encompassing the whole Breast, a plain Indication we ourselves likewise had such Hopes that it was not *cancerous*. We farther directed *gr. xv. of Calomel.* with *ʒss. of Diascord.* every third Night for some Time, purging it off next Day, with an Infusion of Rhubarb, Sena, and Salt of Tartar, to *ʒij.* of the strained Decoction, adding *ʒj.* of the soluble Syrup of Roses, or the like Quantity of Manna. On the Days between, she took an Expression of the *Millepedes* in White-wine, *ʒij. ad ℥j. Vini*, and two Spoonfuls of the same for a Dose, twice a Day; drinking thereupon a small Draught of a *Decoct. Sarsaparillæ*, prepared with the *Aq. Calcis*, keeping her to a more regular Discipline in the other *Non-naturals* than she had formerly observed.

For ten Days, or a Fortnight, we could perceive little Alteration, the Hardness continuing much the same: There were, indeed, none of those blackish, *varicous*, or turgid Veins, upon the

the Surface, nor yet the Inequality, lancinating Pains, or intense Hardness, usually perceptible in the *Cancer*; but yet we were both suspicious it might thus terminate in so ill a Habit of Body as we had to do with, that we took it at one Time under Deliberation, whether we should not leave off our Application to the Breast, and try only to *palliate* by softening her Blood with *Ass's Milk*, *testaceous Powders*, *China Drinks*, *Anodynes*, and *Almond Milks* or *Emulsions*: But thinking it necessary to make some farther Tryal with our first prescribed Course, we continued the purging with *Calomel* in larger Doses, and cover'd the Breast with the *Empl. ex Ammoniaco*; by which, in about a Fortnight more, the same very sensibly relaxed of its Induration, her Pain abating also: And thus once a Week renewing the outward Application, and prosecuting our internal *Regimen*, in about ten Weeks Time, the *Tumour* was entirely resolved, and this seemingly threatening Disease conquer'd. After this she was, on the Account of some *uterine Obstructions*, and to remove the *Cachexy*, put into a *chalybeate* Course, with the *Bitters* and *Spaw-Waters*, by which soon after she regained her Flesh, and a better State of Health than she had enjoyed for many Months past.

Having thus finish'd our Account of the *four General Tumours*, I should now proceed to some other more particular ones, did not one, the most formidable of all others, I mean the *Cancer*, which also results oftentimes from the last recited, call for our Remarks, and with which I intend to finish this first *Section*.

I might farther have observed to you, that the *Schirrus* very frequently seizeth likewise upon the internal Parts, particularly the *Liver*, *Mesentery*,
the

the *Spleen* and *Womb*, in the lower Belly; and in the *Thorax*, or Chest, the *Lungs* themselves are found besprinkled, especially in some *strumous* Habits, with hard Tubercles like so many *Schir-ruli*; but the Surgeon having here no farther Concern therein, than at some times laying on a resolving Topic, such as *Fomentation*, *Cataplasm*, *Liniment* or *Plaster*; and the Cure, if attainable, being effected by the Prescription of the Physician, who is principally consulted therein, the same has been for that Reason overlook'd. But we hasten to the *Cancer*, which we so lately left as a Lion sleeping, whom finding now provok'd, and rousing up, we shall [however happening to be foil'd] prepare to encounter him the best we can.

Of a CANCER.

Cancer.

This Disease, the most deplorable of all others, and true *Opprobrium Chirurgorum*, we define a hard or knotty, unequal and very painful Tumour, of dusky or livid Complexion, with the Veins distended round about its Surface, arising in any Part of the Body of both Sexes, but more commonly in Women's Breasts; in which latter more particularly, either through the corrosive Nature of the Serum, or other Dyscrasy in some Juice secreted from the Mass, by the Antients term'd *Atrabilis*, some Pressure or Bruise happening to the Part, the same here first obstructed, tho' doubtless predisposed to ferment, raiseth in the Place a small and scarce perceptible Knot, which increasing gradually, takes in at length the whole Breast, and binds as it were the Body thereof close down to the Ribs, as it does it self also in other Parts, to those it possesses

possesses or lies upon : By which it is manifestly distinguished from the *encysted Tumours*, as well as from others of the *Glands*. From the common *Sarcoma* it is known by its great and more unequal Hardness, its pricking Pain, and turgid Veins : From the *Schirrus* by the Pain chiefly ; which if happening to accompany, there is great Danger, as we have already observed, of the same degenerating into the Disease before us.

When the Distemper has broke thro' its Enclosure, the Skin, it is called an *ulcerate Cancer*, as by some before it was called *occult* ; altho' this latter Name is more properly bestowed upon it, when it has seized the internal Parts, or those not obvious to Sight, as the *Uterus*, a Part very commonly the Seat of it, or the *Intestinum rectum*, where also it sometimes fixeth.

And being once come to break its Covering, the Skin, or other Membranes investing, it sooner dispatcheth the miserable Patient, not only by its furious Acrimony devouring and preying on the Flesh in some Places, whilst it spews out *Fungi*, like the Heads of *Collyflower*, in some others, and this with the utmost Outrage to the Spirits ; but also from the vast *Gleet* and intervening *Hæmorrhage*, when by its caustic Salt it has eaten thro' the Coats of the Vessels, and having nearly exhausted the purple Stream, in the midst of dismal Groans, excruciating Pains, intolerable Stench and Putrefaction, the miserable Creature finds Release by Death, which had been long Time wish'd for.

The *occult Cancer* is by the *Grecians* named *καρκίνωμα*, which I have farther explained in an other Place, as when ulcerated *φλεγδαίνα*, from its devouring Faculty ; tho' it is common to call
other

other corrosive or eating Ulcers by the same Name.

The *Germans* on the like Account name it *En Wolph*; which metaphorical Term, is by the common People among us, taken literally, as I have observed in my Remarks upon this Distemper, in my Tract of the *Skin Diseases*.

Cause.

As to the Cause of this indomitable and dreadful Malady, we have already derived the same from a depraved *Serum* in the Blood, which meeting with a suitable local Ferment in the Parts of the Body, particularly the *glandulous*, excites therein a morbid Effervescence, in like manner as from the Mixture of some chymical Liquors, less offensive of themselves, there results an igneous or burning *Stagma*, and putting off their pristine Nature, degenerate into a predatory and corrosive Liquor, destroying the Texture of the *Fibres*, and imbuing the Juices round about, with the same venomous Taint, induces a *Coagulum* therein, and raiseth this hard Tumour; whilst the said Juices in the mean Time, like an *Oil of Vitriol*, or *Aqua Fortis*, consume and tear in sunder the *nervous Fibrille*, exciting withal the most acute and painful Sensation.

That there should be this *local Ferment*, we rather believe, for that some light Disaster, such as *Blow* or *Pressure*, a *ragged* or *faulty Tooth*, has oftentimes given Rise to the Disease, where the circulating Fluid being interrupted, the Seed as it were is sown; which by the Accession of some adust Particles in the *Serum*, or acrid Salts therein, like a *Spark* falling upon *Tinder*, the Conflict is begun, and the rest of the *Tragedy* acted by the Continuance of this Ebullition, or diseased *Ferment*.

And

And thus as the *Bruise, Pressure*, or other Accident, may deserve the Name of a *disposing* or *formal Cause*, yet the *material* or *efficient*, is some particular *Dyscracy* in the *Serum sanguinis*, which tho' probably it might not have fixed peculiarly upon such a Part, if the Accident had not happened; yet whenever meeting with a suitable Matter with which to ferment, it might still have manifested its Disposition, as it often does, without any such previous external Occasion; and where we are not always so happy as to free the Patient, even by *Excision* or *Extirpation*, more of the same *Leaven* remaining yet behind, and very commonly seizing the adjacent Parts.

The manner how the *Blood*, but more particularly the *Serum* thereof, should contract this *corrosive, venene* Quality, may be from Errors committed in some of the *Non-naturals*; such as *hot and inflammable Meats and Drinks, seasoned, acrid, salt, powdered, pickled, smoaked or dried, together with other gross and spicy Aliments, a hot Air, and violent Exercise therein, a sedentary, melancholy, and careful Life, deep and intense Thought, with Sorrow for the Loss of Friends, or thro' other Misfortunes, want of Rest, as also of the Hemorrhoidal Discharge in Men accustomed thereunto, or the Menstrual in Women.*

These, with other of the like Kind, not only vitiate the Concoctions of the Bowels, but deprave the secreted Juices of the several Organs, imbuing them with a *vitriolate* Acidity, or an *arsenical* and *caustic* Acrimony.

Having now done with the Description and *Prognostic*. Cause of this cruel Distemper, the best *Prognostic* that can be made will be but very uncertain.

When

When the *Cancer* is ulcerated, 'tis still worse than while it remains with the Skin yet whole and sound ; worse also in the Mouth or Throat, where the poor Patient is often famish'd or starv'd to Death, than in some other Parts ; worse, where great Quantities of the Treasure of Life, the *Blood*, is daily expended, than where no such Effusion has yet happened : Tho' where-ever it appears, and however complicate, we find it sufficient, sooner or later, according to Age, Habit, and Way of Management, to destroy the Afflicted.

Cure.

We should now hasten to the *Cure*, if we knew of any the Disease would admit. Indeed, in the Beginning, where the Knot is small, and capable of being taken out, if the same arise from an external Cause, and in a tolerable Habit of Body, the *Knife* has sometimes freed the Patient from this threatening Distemper ; or if seated where this could not so well take Place, as about the Parts of the Mouth, the *actual Cantery*, or hot Iron, has done the same. The Way by *Esf-charotic* being highly condemnable, inflaming the Malady, they pretend hereby to conquer and subdue ; a Practice fit only for *Empirics*, into whose Hands, and by whose gross Ignorance, these miserable People, not meeting with that Encouragement they expect from the honest and skilful Artist, fall a Prey, and are made a Sacrifice.

Nor is it admirable, that these *Cancer Quacks* should send those deluded People up and down for Satisfaction concerning some Cures they have performed ; since all who apply to them are amused with the Notion of a *Cancer*. Thus every *strumous Gland*, *encysted Tumour*, or *simple indolent Schirrus*, going under this Appellation,

and some of them by Chance dissolving under their Method, wasted by their *Cautistics*, or lastly most impudently cut off, as I could instance in some *milky Breasts* these Villains have so served; when the Cure, which had nothing therein of Difficulty, is thus wrought, here is sufficient Ground to triumph, for these Pretenders, who, if Justice took Place, should have their Reward paid them by the *common Hangman*: Since I dare say, we may defy them to give one Instance of a fixt or true *ulcerated Cancer*, that was ever cured by their Management: No, Gentlemen, you too well know the Nature of this Disease, and that Art [when it is arrived to any Heighth] can do little more than *palliate*.

Happy truly had it been for thousands in this City, could they have been content with this Way of *palliating*, instead of listening after a promised Cure; when by regular *Diet*, *Bleeding*, gentle *Purgation*, proper *Alteratives*, to correct the *Malignity*, and *edulcorate*, or at least soften the acrid Juices, *Narcotics*, to blunt their Pain, when at any Time outrageous, *Almond-Milks* and *Emulsions* to contemperate their Heat, and *Anodyne* Applications, if any *Topic* at all should be thought requisite, they might have lengthned out their Days, some of them too very quietly, and died perhaps at last, of some other Distemper.

As to *Diet*, you are to take Care that the same be the most simple, prepar'd of Meats easily digested, by no means compounded, or made out of mix'd Dishes; above all, let them shun what is acrid, hot, spicy or aromatic; all salted, powder'd, baked and fryed Meats; together with acid, sour or pickled Sauces, or other Condiments. Strong Drinks and Wines are equally prejudicial: Instead of all which, the *Ass's Milk*, *Almond-Milk*, *Barley Water* with

Milk, or an Emulsion of the cold Seeds, are to have Precedence, as being excellently well qualified to contemperate the raging Salts, and edulcorate the sharp Juices.

For such however as have been used to Wine or strong Waters, a moderate Sack-whey, or Wine diluted, may supply the Place.

As to *Purgation*, it is beyond Controversy useful at some times, to empty the Bowels this Way, and thereby to lessen the *Cacochymy* of the Blood; for this End, the Medicines directed for the *Schirrus*, are by some approved. The *Chymists* highly magnify their *Arcanum Coralinum*, for this Use; but I think the same too dogged and surly a Medicine for these Habits, and too shocking also for the diseased Part. For the like Reason, together with that of their pungent and acrid Heat, I cannot, as they do, recommend their *Scammoneat* and *Aloetic* Medicines, being not only apt to heat and inflame, but also to set open the Mouths of the Vessels, especially the latter, and increase the Bleeding, to which these Patients are liable, when the Disease is ulcerated.

Instead of which, I prefer either the *Decoction* or *Infusion* of *Sena*, *Polypody*, *Epithemum*, *Tamarinds*, *Rhubarb*, or the like, *edulcorated* with the *Syr. Rosar. Solut. Violar. de Cichoreo, de Pomis purg.* also *Manna*, *Cassia*, *Elect. Lenitiv. Diaprun. simpl.* which may supply the Place of Glysters, at any time when the Body is hot and costive.

Bleeding upon a new *Effervescence* or Commotion of the Blood, will be found sometimes necessary to abate the Heat, and take off the Fluxion.

As for *Alteratives*, a *Decoction* of the Woods, such I mean, as the *Sarsaparilla*, *China*, *Sassafras*, *Santala*, to which may be added the *Rad. Eryn-*

gii condit. Raf. C. C. & Eboris, as it is directed for Hectical People, always omitting the *Guajacum*, by reason of its Heat and pungent Particles, may be of some Advantage, if taken constantly in the Way of a *Diet*, with a little Milk; also the *Ass's Milk*, with the *shelly Absorbents*, such I mean as *Pearl, Coral, Crab's Eyes and Claws*; the *Millepedes* have here also a deserved Esteem, as has likewise the *medicated Aqua Calcis*; but what peculiar Virtue there is in the *Clavi Equini*, or the *callous Warts* from the Horse-heels, so much cried up by some of the common People for this Purpose, I must confess, I know not, but have been inform'd by a foreign Physician, of good Learning and Practice also, that the *Sapo Venetice*, dissolved in any proper *Mensstruum*, or made into Pills, and given a Drachm for a Dose twice a-day, is a *Specific* in the *Cancer*.

We know indeed the same to be an excellent Medicine for bridling the exorbitant *Bile*; of which we have daily Instances in its curing the *Icterus*, or *Jaundice*; and it is not improbable, but by its oily, gentle, and smooth Parts, it may be able to blunt, or at leastwise sheath, the pungent, acrid, *cancerous Salts*, or the *Bilis atra* of the Antients, here offending.

As for *local Medicaments*, or external Applications, where the *Cancer* is not ulcerated, I have observ'd those People generally fare best, who meddle with none at all; a simple inoffensive Plaister in other Cases, by constipating the *Pores* here only increasing the Heat, and promoting farther Disturbance: Upon which Account, for many Years past, it has been my Advice to these unhappy People, to forbear experimenting any such, how speciously soever recommended; the like of Unguents, by stopping the *Pores*, and

hindring Perspiration, for the most part doing more Hurt than Good; as does likewise the frequent handling, and all outward Pressure from *Stays*, *Bodice*, or other Whale-bone Stiffning, which at such Times are carefully to be avoided; even the blue *Woad*, or *Wad*, so usually worn upon the Place, having, I think, little other Use than to make the Disease appear still more frightful, by the Dye or Stain imparted to the Skin thereby.

For such however, as will not be content without an external Remedy, or where the Cancer is ulcerated, the best *Topics* are those borrowed from *Saturn*; such as the *Magistery* and *Salt* thereof. The *Balsamum Saturninum* in *Bates* is likewise commended, but I think, the *Menstruum*, which is the *Spir. Terebinth.* abundantly too hot, and thereby a Hazard of inflaming the Distemper; wherefore I should prefer the *Linimentum simplex* of the same Author, prepar'd of the *Succus Solani*, and *Oleum Rosarum*, to which are added *Lithargyrum* and *Cerussa*. Of Kin to this, is our common Preparation of the Shops, from one of its Ingredients, named *Diapompholigos*. The *Oleum Bufonum* & *Rantarum* of the said *Bates*, are likewise as convenient *Liniments* to the Part as most others.

A French Author Monsieur Gendron, some Years past, publish'd a small Treatise upon this Distemper; in which, as I remember, [for I had only a cursory View thereof] discharging the *Fluids* or Juices in the Blood, as least concern'd, he seem'd to place the chief Mischief in the Contortion or ill Contexture of the *Fibres*, the small Roots of which, like the Threads from those of Plants divaricating in the Earth, being thus distempred, running deep, and winding under the

Flesh,

Flesh, are first of all to be taken out clean, and then the Disease is easily vanquish'd.

But how the vast *Sloughs* and horrid *Fungi*, the putrid *Gleets*, with other Symptoms, the apparent Effects of some Liquor, the most highly venene and corrosive, can be reconciled to this Position, I cannot readily imagine; wherefore leaving this Gentleman's Advance, as a meer *Hypothesis*, till the *Phænomena* are better adapted, I shall likewise, first inserting a Case or two, take my Farewell also of this desperate Malady, with these Lines I met with in an antient *Manuscript* of *Physic*, placed under the *Cancer*.

*Si aliquem odis,
Ac infelicem præcas:
Nec Pests,
Nec Lues,
Nec Pandoræ Pixis,
Nec Podagra,
Nec Calculus;
His omnibus omissis,
Si magis infelicem,
Habeat Cancrum.*

Which I have thus translated:

Is there a Man you hate,
Or wish the hardest Fate,
Bid neither Plague, nor Pox,
Nor fam'd Pandora's Box,
Bid neither Gout, nor Stone,
But [letting these alone]
If wretcheder you'll make him,
Then bid the *Cancer* take him.

An *Apothecary* in *Bishopsgate Street*, of a cor-Hist.VIII.
pulent full Habit, and sanguine, having for some
Months

Months been disorder'd with an Exulceration on the Leg, of the *Dyssepulotic* Kind, at length upon drying up of the same, complain'd of an aching and sometimes pricking Pain about the *Sphincter* of the *Anus*; which taking for the *Piles* he overlook'd for a while, contenting himself with some of the *Sulphur* Medicines, usually prescribed for these Complaints: But at length the Disturbance increasing, with some Difficulty of easing himself, when he went to the Stool, he sent for me; and upon Search with my Finger in *Ano*, I plainly felt a hard *Tumour* on the Side of the *Sphincter*, which had given a flattish Figure to the Excrement, upon passing by the same. I was unwilling singly to give my Opinion, and therefore taking no Notice of its *malign* Disposition at that time, I directed only a *lenient* Injection of warm Milk with the Yolk of an Egg, and an Ounce and half of *Syr. de Meconio*, to be thrown up that Night. The next Day, I met Mr. *Bernard*, who, upon Search, after the withdrawing his Finger, declar'd the *Tumour* to be an *occult Cancer*.

The Patient, for some Weeks, was under my Care, who did all I could, to palliate with Injections of mucilaginous Liquors, *ex Sem. Papav. & Hyoscyami alb. Psillii & Cydon. in aq. Hord. Extract. Decoët. Hordei cum Melle Rosarum*; also *vulnerary Decoëtions ex Fol. Plantag. Saniculæ verbas. Equiset.* sometimes a Solution of *Sacch. Saturni in aq. sperm. Ranar.* and when costive, a little *Oleum Lini cum Syr. Violarum & tantillo Lactis*. He enter'd upon a Milk Diet, drank Milk with a *China Decoëtion*, Milk and Barley-Water, *Ass's Milk*, with Emulsions of the Seeds and Almonds, to take off the Fervor or Heat of the Blood, and soften the Juices thereof, with

Anodynes

Anodynes between Whiles, as the Pain required.

But the Disease increasing, and finding no Prospect of a Cure, he was drawn in by a Person of more Assurance, to make Trial of his greater Abilities, very much to my Satisfaction, who had it seems disgusted his Friends, by dealing plainly with them.

However under his new Method, I daily perceiv'd him sinking, so long as he was able to get abroad, with his late *Corpulency* hastening to a *Skeleton*: The *Cancer*, as I was inform'd, soon after appearing on the Out-side of the *Anus*, and spreading toward the Buttock, threw out large *Fungi*, discharging great Quantities of a fætid Gleet, which with the returning *Hæmorrhages*, were quickly after too powerful even for the *actual Cautey*; so that in Spight of all Endeavours, the poor Man quickly after expired in the greatest Misery and inexpressible Anguish.

That which I thought remarkable in this Case, was a large Quantity of a brown or duskyish *Salt*, like Sand, which upon wiping himself after his Stool, he had long Time before observ'd, felt very gritty, and of which, having for that Purpose washed the Excrement of one Stool in several Waters, this saltish Sand subsiding to the Bottom of the Bason, he had collected near upon two Drachms; which examining by my Tongue, I found by the hot, pungent, and bitter Taste, there was more of a *salt* than *fabulous* Nature, and seeming in their shining Colour, as well as Figure of their *Crystals*, to resemble those Concretions frequently observ'd in the *biliary Ductus*, or *Porus biliaris* and the *Ductus Communis*, entring the *Duodenum*, as well as in the *Vesica* it self. I once remember to have found

the same upon dissecting a Lady, who died of an obstinate *bilious Cholic*, when besides one large Stone, that in a manner fill'd up the Cavity of the *Gall-bladder*, many Grains were discoverable in those small Passages, of the like Salt or Sand-like Substance. That some *bilious* Juice, or the *Bile* itself as it were *torrefied* and *adust*, as the Antients termed it, had given their Existence, I think beyond Dispute: And how far a true *Cancer* may partake of some degenerated *biliary Salt* of the like Kind, is worth surely an Enquiry; in order to find their *Antidote* or *Specific*, that may be able to prevent their Concretions, and alter their Texture, at leastwise so to blunt their Force, that they may be less able to ferment with the other Juices of the Blood, and kindle this hitherto inextinguishible Fire therein.

The following being a History of the same Disease, but attended with better Success, I have thought fit to insert; and truly before this fell out, I was ready to entertain a Persuasion in my self, that an *ulcerated Cancer*, as I had all imaginable Reason to believe this, was not to be cured. The Case was thus;

HIST. IX. An Elderly Man keeping a Distiller's Shop in *Shoreditch*, had complain'd for some Months past, of a *Cancerous Callus* upon his Lip, appearing first like a Wart, soon after growing painful, fretting and spreading farther, which gave him great Uneasiness; upon which he consulted a Physician of his Acquaintance, but finding no Benefit under his Prescriptions, the Ulcer still spreading, after some Weeks Trial of other Experiments ineffectually; he sent for me to consult with Mr. *Harvey*, about that Time Master of the Surgeon's Company: Upon Examination, we found not only a callous painful Ulcer, with the little Colly-Flower

ly-Flower Protuberances over-spreading great Part of the lower Lip; but the Malignity seizing also the whole lower *Mandible* on that Side, stretching down the Neck, the *Glands* and *muscular* Parts whereof were indurated in like manner, together with the back Part of the *Fauces*; from whence, as well as from the Lip it self, there was perpetually draining off a vast Quantity of a stinking Gleet, being mix'd sometimes with Blood issuing from the Lip; the Jaw so tied down, that he could not but with Difficulty open his Mouth, nor form the Muscles of the *Oesophagus* for their Office of Deglutition; so that there seemed great Danger of his perishing through Want of Sustenance to be conveyed into the Stomach. The *Maxillary Glands*, as well as the *Sublingual* felt like so many little Pebbles; the same unequal and painful Hardness extending it self quite down to the *Clavicle*.

The Result of our Consultation was to pronounce the Disease truly *Cancerous*, and that all we could do, [it was to be fear'd] would only *palliate*.

The Day before, there had been a famous *Cancer* Doctor, who propos'd the wasting of the Excrecence by *Escharotic*: But I soon convinc'd the Patient he could receive no Benefit thereby; for the Distemper having seized upon the other Parts, rather farther Mischief would ensue, stirring up a fresh Fluxion by the Pain from a *Caustic* Medicine.

Having made this *Prognostic*, the old Gentleman committing himself to my Care, I immediately put him into a Course of *Ass's Milk*, with the edulcorating or *absorbent* Powders, to temperate the Juices of his Blood: *Fontanels* were directed

directed *inter Scapulas* ; twice a-day he took likewise an Expression of the *Millepedes*.

He had a Son bred up to the Practice of Surgery, to whom I gave Directions, that he should frequently wash the ulcerated Lip with a Solution of the *Sacch. Saturni in aq. Sperm. Ranarum*, and after apply a Pledgit of *Diapompholigos*, secur'd with a Muffler. In his Mouth, which was also beginning to ulcerate. She held frequently a thin Mucilage *ex Sem. Psyl. & Cydon in aq. Hord. Extr.* with a third Part of *Mel. Rosar.* The outside of the Cheek, and down the Neck was lightly embrocated *cum Ol. Rosar. & Unguent. Sambuc.* he drank freely of *Almond Milks* or *Emulsions* between Whiles, in a Draught of which at Bed-time was dissolved $\text{ʒ}\beta$. $\text{ʒ}\text{vj}$. or $\text{ʒ}\text{ij}$. of *Syr. de Meconio*, as his Pain and Restlessness required.

When this Method had been follow'd little more than a Fortnight, he grew easier; the Induration sensibly lessened, the knotty Glandules seeming to resolve, and the Gleet, with which he was wont to wet half a Dosen thick Clouts in a Night, was reduced to one half, neither yet were they half so wet.

Upon which Encouragement, we advis'd him to persevere; and soon after this, he could swallow his Broaths more easily, got his Rest also, which he had been a long Time a Stranger to, unless under the Force of an *Opiate*, or quieting Medicine. Quickly after, he broke out all over with a pustulous Itch, which much disquieted him by his continual scratching and scrubbing of his Body; in so much, that discontinuing his Milk for a little While, I gave him a small Dose of *Calomel*; purging it off again
next

next Morning with *Manna*, and the *Epsom Waters* turn'd with Milk; which I repeated once in four Days, for three or four Times, giving him also between Whiles a Morsel of the following Electuary, after which *℥iv.* of the *Apossem* here directed.

R. Conf. Fruct. Cynosb. ℥j. Æthiop. min. sine igne, pp. ℥β. Chel. canc. simpl. Margarit. pp. ā ℥j. Syr. e Succo Aurant. q. s. M. f. Elect. cujus capiat, ad Magnit. N. M. maj. Mane & V. Pom. superbib. ℥iv. Aposem. Seq^{uis}. cujus capiat eandem Quant. per s. b. l.

R. Rad. Sarraparil. Chinæ incis. Oxylapath. ā ℥j. Cichor. Acetos. ā ℥β. herb. Scabios. Fumar. ā Mij. coq^{tr}. in aq. F. q. s. pro Colaturæ. ℥iij. [sub finem addendo vini albi ℥β.] cui addendo, Syr. e Succo Fumariæ ℥iβ. f. Aposema.

By the Use of this *Regimen*, for about a Fortnight longer, he got clear of his Eruptions and troublesome Itch, recovering his Strength beyond Expectation. We then put him again upon his *Milk-Diet*; which he had not long pursued, before the callous Edges of the Ulcer resolved, as did likewise the Induration on his Chaps and Neck, the Ulcer soon after contracting, softening throughout and firmly cicatrising, as it yet remains, after several Years past.

Thus was this seemingly desperate Disease, in less than three Months Time subdued; and the old Man, who had taken Leave of all his Friends, being look'd on by our selves, as well as them, a lost Man to the World, restor'd to a better State of Health, than he had enjoy'd long time before.

How

How far this *Cutaneous* Eruption might conduce to his Recovery, I cannot say; but it seem'd to me probable enough, that there was a *Metastasis* or critical Translation of some sharp and corrosive Particles from the Blood, secreted by the *Miliary Glandules* of the *Cutis*, and through their Inability to perspire, stop'd under the *Cuticula*, there raising those troublesome Pustules, which, whether or no they might not deserve the Name of a *depuratory Crisis*, I must leave others to determine.



SECT.



S E C T. II.

Of some other particular Tumours.



WE have in our foregoing Section, gone through the *four general Tumours*, *Phlegmon*, *Erysipelas*, *Oedema*, *Schirrus*, together with the *Cancer*, sometimes resulting from the last, to each of which, as under so many *Classes*, are annexed certain others.

Thus to the *Phlegmon* belong not only the said *Tumour* complicate with the *Erysipelas*, *Oedema*, *Schirrus*, and thence borrowing the Names *Erysipelatodes*, *Oedematodes*, &c. as formerly observed, but also the *Furunculus Epiniētis*, with some others of the inflammatory Kind.

To the *Erysipelas*, the same in like Manner complicated with the *Herpes* and other *Choleric Pustules*.

To the *Oedema*, the *Anasarca* and other watery Tumours as the *Hydrocephalus*, &c.

To the *Schirrus*, the *Cancer*, of which we treated last, and to which are added by some the *Scabies* and *Lepra*.

The *Emphysema* is, I think, a *Tumor sui generis*.

There are likewise other *Tumors*, which have for their *Basis* some obstructed Gland, and these
more

more or less liable to *Inflammation*: Of the former Kind, I reckon the *Bubo*, both *Inguinal*, and *Axillary*, [if the latter may be called by that Name] the *Phyma*, *Panus*, or *Phygethlon*, *Parotis*; of the latter the *Scrophula* or *Struma*.

To these last, on Account of their cold and sluggish Nature, we shall join the *encysted Tumour*, as the *Atheroma*, *Steatoma*, *Meliceris*, *Ganglion*, *Bronchocele*; also the *Sarcoma*; most of which are certain *Tumours* arising in any Part of our Bodies, from some *extravasate* Humour, or nutritious Juice not duly assimilated, where lodging in the Interstices of the Fibres, and having still more of the same Supply, they break in sunder the fine and tender *Fibrillæ* of the *Membranes*, and thereof form themselves certain *Capsulæ* or little Bags, which I find to have been the Opinion of our Predecessor Dr. *Read*, being supplied still with Nourishment from the capillary Vessels, dispersed and growing along with them; where according to their several Natures and Consistencies, together with their Disposition to coagulate by the Heat of the adjacent Parts, they thicken more or less, putting on the Shape of Flesh, of Fat, or Suet; when less condensed, of Puls, or Pultis, or of that of Honey, from the Likeness of their several Contents deriving their Greek Denominations.

Thus the fleshy is called *Sarcoma*, the fatty or suetty *Steatoma*; that like the Pulse, *Atheroma*; the honied, *Meliceris*, of which see our *Ætiological Table*.

There are moreover *Tumours* peculiarly subject to some certain Parts, as the *Phimosis*, and its opposite the *Periphimosis*, to the *Præputium Penis*; the *Perniones*, to the Hands and Feet; the *Paronychia*, to the Fingers; the *Hæmorrhoides*,

hoides, to the *Anus*. Lastly, there are *Tumours* owing to some of the Parts of the Body displaced, and præternaturally distending the Parts they are fallen into; as in the *Herniæ*, both *Inguinal*, *Scrotal*, and *Umbilical*.

According to the general Definition, I at first laid down of this Disease, that by the Name of *Tumour*, we are to understand any preternatural Inequality of one Part of the Surface above another adjoining; we must likewise take in *Warts* and *Corns*, with all the *Pustulæ* and *Tubercula* at some Times rising in the Skin; but having written professedly of the Diseases incident to that Part, I must crave your Excuse, if I here pass by such of them, as are therein discuss'd: Nor shall I in what follows, multiply Divisions, intending to comprehend what remains, under this Distinction, of *Tumours Acute*, and *Tumours Chronical*; or if you had rather I should keep to the antient Terms, of *Tumours* from *Fluxion*, and *Tumours* by *Congestion*.

Before I enter upon which Task, give me Leave to put you in Mind, that altho' in our Account of the four general *Tumours*, according to the Opinion of the old Writers, the first is derived from *Blood*, the second from *Choler*, the third from *Phlegm*, and the fourth from *Melancholy*; yet must it be understood, as we have remark'd in our Account of them, that it is the *serous* Part, which is the Subject of them all; for this only is capable of *Resolution*, *Maturation*, and *Digestion*: Which having hinted, I may farther inform you, that there are three more especial Cases, number'd among the *Tumours*, wherein the *grumous* alone, or together with the *serous*, make up the Contents; I mean, the *Ecchymosis*, with the *Varix* of the first Kind; of the last, the *Aneurisma*.

neurisma. The first I have remark'd in my Tract aforesaid, and shall farther observe in speaking of *Contusions*; the second I shall take Notice of, when I touch upon the *Hernia Varicocoele*, as also among the *Ulcers*; and the last, in my Discourse of the *Wounds*, of the *Veins* and *Arteries*.

I proceed now with the *acute Tumours*, among which, first of all, of some inflammatory ones of the *Glands*, I shall begin with the *Bubo*.

Of the B U B O.

Before we describe this *Tumour* it may be convenient to say somewhat of the Nature of those *Glands* in general, which are the Seat of these, and some other *Tumours*, hereafter to be described.

The Use of the Glands. The antient *Anatomists* were at a Loss for the true Office of these Parts, assigning them no other than that of Bolsters or Pillows, for the easier Support and Conveyance of the Blood-vessels; but the Moderns have incontestably prov'd them to be Receptacles of the *Lymphatic Juice*; which they receive into their vesiculous Substance, from a proper *Importing*, and after undergoing probably some Alterations therein, discharging the same by their *exporting Ducts*, into the common Receptacle of the *Chile*, or into the *subclavian Vein*, for the same Use, *viz.* diluting the said Chilous Juice, and rendring it fitter for Circulation through the smaller *Canals*, before it can be sanguified, or turned into Blood.

Whether the Origin of this *Lymph*, be in these *Glands* or elsewhere, is not so material to

our

our Purpose : A late noted Anatomist ^a derives the Source from the Extremities of the Blood-vessels themselves, by Mediation of some exceedingly slender and fine *Tubes*, or Pipes, being so confident of the Discovery, as to have given us a *Plan* of the same [I think to the naked Eye imperceptible] Extremities of these *Tubuli*, at their Rise from the *Pores* of the said Blood-vessels, before they unite in the Branch of their *Ductus*.

But it may suffice to our Purpose, to know whenever this Lymphatic Juice, supplied from a diseased Blood, being entred the Substance of the *Glands*, and not readily passing the same, the Part will necessarily be distended and overloaded, from the Afflux of fresh Juice still coming on ; when, according to its Proneness for inflaming or coagulating, it either raiseth an *Abscess* in the Body of the Gland, of which we are now discoursing ; or, being of a colder Disposition, hardens into the *Schrophula*, to be observed presently.

Our Country-man, Dr. *Wharton*, in his *Adenographia*, assigns a two-fold Cause of the Tumefaction of these Glands. ‘ *The first, from the Circulation of the Blood impeded, or being more forcibly propel’d by the Artery, than taken up by the Vein, there will necessarily arise a Tumour. Examples of this we have in Contusions of these Parts, from whence Obstructions, Inflammations, and Apostems very often happen. Secondly, from the Nerves spewing out their superfluous Serosities in the same Parts ; which also either offending in Quantity, raiseth a simple Tumour ; or in Quality,*

^a Mr. *Cowper* in his large *Anat.*

producing either the venereal or pestilential Bubo. Hence also will arise a Compression of the Blood-vessels, by which the Tumour is still farther augmented, to that vast Magnitude at sometimes, that Mr. Cowper observ'd the inguinal Gland of Sir William Granmer to weigh six Pounds, the Trunk of the crural Artery running through the lower Part thereof^b: But hastning to our Subject.

Bubo.

The Bubo, we define a Tumour sometimes with, at other Times without Inflammation; seated upon, and circumscribed by the Glandules of the Groin, to which the same Parts in the Axilla, or Armpit, are likewise subject, and usually, tho' not so properly, called by the same Name. These, with the parotid Glands, seated behind the Ears, supplying the Place of *Emunctories*, or Common-sewers to the other Parts of the Body, through which the morbid *Illuvies* of the Blood is often drained: And nothing is more common than to see the *serous* Humours in that of Infants, derived by these latter Glandules, so sharp sometimes, as to excoriate the Parts adjoining, nay to rot the very Headcloaths of sucking Children, like an Oil of Vitriol, or an *Aq. Fortis*; withal so very strong and fætid, as to strike the Nostril with a very disagreeable Sensation; whence I think these Glands have as just a Title to that of *Odoriferæ*, as those on the Neck of the *Glans Penis*, so named by that curious Anatomist Dr. Ed. Tyson, decess'd. Nor is it unusual for Nurses to observe those Children the most healthful, who have this Benefit; and to be in the greatest Danger, when by improper Treatment of repelling Topics, the Discharge happens to be

^b See Appendix to his large *Anat.* Fig. 1.

check'd. Moreover, we find the Fevers of these little Ones often terminating by some *critical Abscess* of these *Glands*; as do some malignant or contagious ones in the adult, as well as on those of the *Groins* or *Arm-pits*: Upon which Account we distinguish the *Bubo* as *critical* and *symptomatical*.

The former we have now described; the latter we also define a *painful Tumour of the Glandules of the Groin or Arm-pit*, not primarily or originally affected, but arising secondarily from some *painful Ulcer*, or other *Distemperature* of some adjoining Part; whether purely by a nervous Consent, or from a vitiated Lymph supplied therefrom, by the Blood, I don't determine; but so it is in Fact, that by Reason of some painful Disorder of the Foot, Leg, or Thigh, the *Glands* in the *Groin* shall often tumefy, and grow also painful; upon the *Arm*, those in the *Axilla*: Which, after the going off of this Disturbance in those Places primarily diseased, very commonly subside without farther Trouble.

In delivering our *Prognostic* of this Tumour, *Prognostic.* we must acquaint you, that the *Bubo* is more or less dangerous and difficult of Curation, according to its Nature, *benign* or *malign*, *symptomatic* or *critical*: The first admitting oftentimes of being resolved, the latter ought always to be brought to *Suppuration*. After the Discharge whereof, unless Care be taken to correct the *Malignity*, by proper *specific* internal *Antidotes*, there are some of them very apt to degenerate into corrosive, *phagædenic Ulcers*. But these are chiefly of the *venereal* Kind, which I have treated of in my *Siphylis*, a Discourse upon that Distemper, already published.

Cure.

In the Cure therefore of the *Bubo*, whether *inguinal* or *axillary*; for I shall beg Leave to retain that Name for both; if the same be *critical*, the younger Artift, from what we have now said, will see that he must by no Means apply any repelling Topick, or other, by which the Humours may be thrown back into the Blood; but rather use his utmost Endeavours that the same be brought to ripen, or turn to *Matter*: For which End, he may apply a *Cataplasme* of the *Rad. Lil. alb. Fici pingues*, for the easier attracting the Venom outwards, mixing therewith the *Fimus Columbinus vel Anserinus*, also the *Cepæ sub cineribus Coctæ. Allium coctum ac contusum*; to which, in Case of a pestilential Infection, are also added the *Theriaca* and *Mithridatium*: But these, by Reason of the *Opium* in their Composition, however small in Proportion, are, I think, somewhat to be suspected at these Times, unless the same could be left out, or the Compositions kept prepared for these Purposes, with that omitted.

Bleeding, Purgation, or whatever may call off, or derive the poisonous Humour other ways, must be forborn; allowing such Diet as may be necessary to keep up the Spirits, with those proper *alexeterial* Medicines, as may still farther promote their Expansion, and fortify *Nature* for an Expulsion of the same; moving always from the *Center* to the *Circumference* at these Times.

To this End conduce the two foresaid Compositions, *Theriaca* & *Mithridatium*, also the *Conf. Fracast. de Hyacinth. Elect. ex Ovo, Lapis Contrayerv. de Goa, &c.*

Among the Simples for this Purpose, are reckon'd the *Fol. Rutæ, Scord. Rad. Allii. Petasitidis, Scorzon. Serpentar. Valerian. Contrayerv.*
with

with many others, to be met with in the Writings of *Physicians*.

When the Humour advanceth slowly, or that there seems Danger of the same retroceding, some Authors propose [what I have practis'd with Advantage in sluggish pocky *Bubo's*] the setting on a dry Cupping-glass, with much Flame on the Part, by which the included Air shut up being rarify'd to a very great Degree, there is Room made for a stronger Pressure of the external *Atmosphere* all round, whence the Parts adjoining are impell'd into the Glass, and the *Tumour* increased, as is observable in the common *Cupping*.

This being repeated two or three Times, disposeth the *Gland* to inflame, after which the *Cataplasma* aforesaid may be laid on, or a Plaster of the *Gums* or *Mucilages*; to which some [on Account of their hot and inflammable Disposition] add the *Pulv. Euphorbii. Rad. Pirethri. Sem. Sinapios*. But these are seldom required, unless in Times of *pestilential Infection*.

When the Matter is once made, and begins to fluctuate, let a *Caustic* be laid on, as we directed for the suppurated *Phlegmon*; afterwards proceeding to *digest, deterge, incarn, and cicatrise*, as shall be shewn in our Discourse of *Ulcers*.

In the *secondary*, or, as I may call it, *sympathetical Bubo*, the chief Regard is to be had to the primary Disease, endeavouring to take off the Pain and Inflammation attending the same, and of which this Disturbance in the neighbouring *Glandules*, is only the Result or Consequence: However, in the mean Time, you may apply an *anodyne Cataplasma* of Bread and Milk; or you may *embrocate* with some Lenient, as the *Ol. Lumbric. Rosar. Sambuc*. Also at these Times,

a Derivation of the Humour by *Bleeding* and gentle *Purgation* : And if there should remain any *Induration* afterwards, you may try to resolve the same by some suitable discutient Emplaster, such as that made out of two Parts of the *Empl. de Minio*, and one of *Diach. cum Gum.* melted down together. If notwithstanding it should happen to inflame and *suppurate*, you may heal it as was said of the *Phlegmon*, proceeding as above.

And this is all we shall offer concerning the *Bubo*, unless a farther Admonition : That in Times of *Contagion*, or where-ever a *pestilential* Venom is spread abroad, and become *epidemic*, if the same happens, by the Strength of *Nature*, to be thrown out upon these *Glands*, the Ulcer must not too hastily be healed up ; lest the *malign* Particles, to be thrown forth by these Emisseries or Out-lets, being shut in, should after destroy the Patient ; for whose Security, if some Part of the Ulcer, where the same can be commodiously done, were continued as an Issue for a little Time, or till the Sick were absolutely out of Danger, it might sufficiently compensate the Trouble : If this cannot be done, *Fontanels* set open near the Part, may supply the Place.

HIST. X. An Artificer near *Woodstreet*, under an infirm State of Health, after several Months languishing with a *hectic* Fever, accompanied with *Spitting of Blood*, and *Night-Sweats*, at last complained of a Pain, with Swelling on one of his Groins. He had committed himself to the Care of an *Apothecary* in his Neighbourhood, who under Pretence of recruiting his Strength, even before this new Appearance, notwithstanding contrary Indications on all Sides, as may be infer'd from the Description above, advised him to drink strong Liquors, and to eat any Thing that

that he had a Fancy for; but after the Swelling shew'd it self, some of his Acquaintance advis'd him to send for me, who viewing the same, and perceiving it advancing forwards, thought it by all Means necessary, from whatever Cause arising, to promote its *Maturation*; and in order thereunto, advis'd the *Cataplas̃m* of Figs and Lilly-Roots, whilst for his *Cough*, *Soreness of his Breast*, *Spitting of Blood*, *Night-Sweats*, and other Symptoms of his *Hectic*, I prescribed what follows.

℞ *Conf. Rosar.* ℥j. *Bals. Lucatel.* ℥℞. *Coral. rub. pp.* ℥ij. *Ter. Japon.* ℥j. *Syr. de Symphto q. s.* *M. f. Elect. cujus capiat Quant. N. M. sexta quaque hora superbibendo Cochl. vj. Emulsionis sequentis.*

℞ *Amygd. d. decort. No. vj. Sem. Papav. alb. ℥ij. contusis affunde Aq. Hord. [in qua Gum. Arabic. ℥℞. soluta fuerit.] ℔j. Colaturæ addendo Aq. Cinam. hord. ℥j. Sacchar. q. s. M.*

℞ *Ol. Amygd. d. ℥j. ℞. Syr. Papav. Rhead. & de Meconio ā ℥℞. Spec. Diatrag. fr. ℥ij. Sacchar. cant. alb. parum. M. instar. Lohoc. de quo capiat Cochlear. amplum e fundo vasculi, Tussi infestante.*

℞ *Aq. Lact. Ceras. nigr. ā ℥jv. Cinamom. Hord. ℥ij. Pæon. C. ℥j. Margarit. Coral. rub. pp. ā ℥j. Sacchar. alb. chrystal. parum. M. f. Julapium. summat cochl. quatuor ejusdem in languoribus præcipue matutino mane sudoribus oppressus.*

After I had written these *Formulæ*, as I was coming down Stairs with the *Apothecary*, before I parted from him, I took him aside, and enquired our Patient's Course of Life, being his Ac-

quaintance, and entirely unknown to me; when in free Discourse between ourselves, I let fall a suspicious Word or two, that I apprehended his Case to be *venereal*: Upon which, contrary not only to the Rules in Consultation, but to the usual Freedom taken one with another related to the same Profession, the silly Man, in my Absence, told our Patient what I thought of his Disease; who in great Concern sent to me the next Day, to let me know, that as I was an utter Stranger to him, he could the rather forgive my hard Thoughts of him; at the same Time avouching his Innocence, as did his Wife in Tears, protesting not only her own, but the Assurance she had also of her Husband's. Whereupon finding how I had been served, I frankly owned, that where such Swellings offered, at a Time when no *malignant* or *pestilential* Distemper reign'd among us, we were always jealous of a *venereal* Taint giving Rise to the same; but let that be how it would, if he thought fit to continue my Visits, as Occasion required, I would do him what Service I could. And understanding the treacherous *Apothecary* had been so very officious, as to offer at the laying open of the *Bubo*, I did farther assure the Patient, that it was not his Business, nor could I think a Man of so tattling a Disposition was fit to have any Thing to do in the Affair: But in that I left him to act as he pleased, and advising the Continuance of the *Pultis*, left him farther to consider of it.

The next Day I visited him again, and found the Person, who intended me doubtless an ill Office, was himself discharged; and the same Prescriptions I was desired to renew, or what else I thought necessary, which were sent away to another.

another. Taking a farther View of the Swelling, and perceiving the same almost fit for the *Caustic*; I told him he must have a Surgeon, and he concluded upon Mr. *Fern*, who the next Day laid on a good large one, on the rising Part of the Tumour, which was now increased to the Bulk of a large Turkey-Egg, lying like a small Roll of Bread, along the *Inguen*, and full of Matter fluctuating underneath. Which being discharg'd, and the *Esfchar* upon separating, we met again, to consider, which Way to forward the Work of healing, by mending the deprav'd *Crafsis* of his Blood, and subduing the hectical Indisposition still threatening; and accordingly, I wrote the following Prescript.

℞. Conf. Rosar. ℥j. pulv. Haly rec. zij. Chel. Canc. simpl. Coral. rub. pp. ā. ℥j Syr. de Symphy to q. s. M. f. Elect. de quo capiat Morsulum ad Magnitud. N. Mosc. maj. Mane ac Vesperi superbibendo Haustulum Decocti. Seq^{tis} cujus etiam bibat aliis temporibus cum tertia parte Laet. Vaccin. admixta.

℞. Rad Sarsaparil. Chinæ incis. ā. ℥β. Rasur. Eboris, & c. c. ā zij. Eryngii condit. ℥j. Coq^{tr}. in Aq. Hord. q. s. pro Colaturæ ℥ij. sub finem addendo, Capill. Ven. Mβ. & f. Apofema.

℞. Syr. de Symphito, de Meconio Bals. Tolut. aq. Cinamomi Hord. ā ℥j. f. Mixtura ex qua deglutiat Cochlear. aliquo tempore Tussi magis molestante.

When he had been kept to this *Regimen* for some Weeks, his Fever, and *Hæmoptoe*, or spitting of Blood much lessened, as also his Sweats, and he grew daily stronger; in so much, that
his

his Surgeon, for his farther Security, pressed upon me, that I would order a little *Calomel*: Since, notwithstanding their insisting so much upon their Continency, we were both still inclinable to believe this *Tumour* had its Rise from some Misfortune of the *Venereal* Kind: And I readily complied with his taking twelve, and sometimes fifteen Grains of *Calomel*, once in three or four Days for as many Times, early in the Morning, that it might not disturb him in the Night, with an Infusion of the *Rad. Rhei cum Syr. Ros. Solut.* to purge it off, three or four Hours after.

The Ulcer being *digested*, was *deterged* with a *Dossil* arm'd with *Liniment*, and dip'd in the *Precipit.* or this last, as the *Sloughs* and *spongy* Flesh requir'd, strew'd on, till the same growing firmer, fill'd up with Flesh, and after some Time, by the same Applications was also *cicatrised*.

But tho' the Surgeon's Work went on as well as could be expected in such a crazy Subject; yet our Patient continued still pining, with some Remains of his *Cough*, Oppression on his Chest, and between Whiles a little Blood hawk't up from his *Lungs*. So that we now put him upon the *Ass's Milk*, and as soon as his Sore would admit, he lay out of Town, by which he found Benefit as to his Breath, and his Appetite likewise. But in a little Time, after the healing his Ulcer, he made fresh Complaint of a Pain about his Fundament, where he had formerly been troubled with the *Piles*; and from whence a large Quantity of Gleet, *instar Loturæ Carnium*, came down at this Time, fouling his Linen in a frightful Manner. Sending for me again, I made Inspection thereof, and on one Side of the *Anus* discover'd an ulcerated *Hæmorrhoid*, which

doubt-

doubtless furnish'd the Excretion aforesaid. I then order'd him to let Mr. *Fern* examine it, and to take his Opinion, mine being for its Continuance in the Room of a *Fontanel*, if it could be kept easy, and did not overflow; not only founded on some of *Hippocrates's Aphorisms*, relating to this Affair; particularly, where that great Man tells us, *Diurnas curanti Hæmorrhoides, nisi una aperta servetur, periculum Aquæ inter Cutem, vel Tabis impendet*; but deduced also from right Reason, for as we had just shut up one *Sink*, by which Nature had thrown forth great Quantity of the morbid *Matter*, tho' not yet sufficient for depurating the Mass thereby, she had now, as before, *critically* open'd another *Sluice* to drain off the Residue, and by the hasty Stoppage whereof, it was odds, if he did not risque his Life, either by the Return of his Sweats, or a Loosness, concluding with a *Marasmus*; of which by two or three Lines, I gave Mr. *Fern* Notice, and left only the following Prescription to temper the Acrimony of the Humours flowing down, and to procure him an easy Stool, when *costive*, as he had been of late.

R. *Cassie recenter Extr. Elect. Lenitiv. ʒi.*
Chelar. Canc. ʒj. Lact. Sulph. ʒij. Syr. Viol. q.
f. M. f. Elect. cujus capiat ad magnitudinem Juglandis, singulis vel alternis noctibus, prout Alvus magis vel minus fuerit astricta.

When I left this *Formula*, I enjoyn'd him strictly the Prosecution of his *Ass's Milk*, and the *Milk Diet* with his *Sarsa Decoction*, taking with each Draught of the former, a Morsel of the Electuary with the *Testacea, ex Conser. Ros. Coral. rub. &c.* as already laid down, when drank with that Decoction: And took my Leave, not seeing

seeing him till about six Weeks after, that I met him accidentally in the Street, where I understood, the Discharge, but more moderate, continued *per Anum*, that he had got rid of his *Cough*, and notwithstanding this last Complaint, had been in Condition to ride some hundreds of Miles, since I had made him my last Visit : Yet I then thought his Aspect such, tho' I said nothing to discourage him, that if he steer'd not his leaky Bottom very uprightly, he was still in Danger of being overlet.

Of some other inflammatory Tumours of the GLANDS.

The rest of the *acute* or *inflammatory Tumours* of these Parts, have so near Affinity with the former, and so little vary in the Cure, unless that these latter very frequently submit to the milder *Suppuratives*, and some of them are safely discuss'd, proving often less stubborn, than the foregoing; that I shall not enlarge by giving a particular *Process* for each, or tarry longer than to describe them.

Parotis,
Phima.
Phygethlon.
Panus.

Some Authors, and those of good Account, having distinguished them scarce otherwise, than according to the Place of their Situation; and thus when happening upon the *conglomerate*, or external *salivatory Glandules*, it is term'd *Parotis*, partaking sometimes of the like Malignity with the *pestilential Bubo*, and requiring the same Treatment, when on the *conglobate* and *submental*, *Phima*, which rising like a small *Phlegmon*, increaseth gradually, and suppurates, being attended with *Pain*, *Tention* and *Pulsation*, tho' not in so great a Degree as that.

There

There is likewise an inflammatory Tumour about the *Verge* of the *Anus*, going by this Name; being the Result of a *Hæmorrhoid* or *Pile* impostumated, and from which the *Fistulæ* of this Part, are often derived, as Mr. *Wiseman* has observed.

When the former *Phima* or *submental Tumour*, partakes more of the *Erysipelas* than of the *Phlegmon*, or carries along with it any *Contagion*; it is by some Writers denominated in Greek *φύγεθλον*, by the *Latins Panus*, being frequently met with under the Chins of Infants and young Children, where appearing hard and round, like a little Loaf of Bread; [whence probably it has borrowed this latter Name *Panus, quasi Panis*;] it grows quickly after red and inflam'd, turning to *Matter*, especially assisted by some gentle *emollient* and *maturative Cataplasms*: And after the Discharge, if mild, heals oftentimes with as little Trouble as the *Furunculus*, or common *Boil*. For it is to be remark'd, that these Tumours under the Chin, however happening to be thrown out of, or separated from the Mass of Blood in the Way of a febrile *Crisis*, are notwithstanding numbered usually among the *Benign*; whereas the *Parotid*, *Axillary*, and *Inguinal*, are generally of the *contagious* and *malignant* Tribe; and that as the former require the milder *Suppuratives*, these latter sometimes want the strongest, together with the Exhibition, as we have already taken Notice, of some proper *Alexipharmic*, that may assist Nature to expell the latent Venom, and throw it outwards.

Having spoken of some *malign* and *pestilential Carbuncular Tumours*, I might have added a few Words of *the Carbunculus*, which, tho' not a *glandulous Tumour*

Tumour, partakes of the highest *Malignity* of all the rest.

It is called in *Greek*, ἀνθαξ, i. e. *Pruna*, a *Live-Coal*, from its burning *Quality*, eating into the subjacent *Skin* and *Flesh*, and never coming to *Suppuration*, the Medicines of which Kind, only increasing the *Putrefaction*, are to be forborn; whilst the rotten *Flesh* is cut into, and the *Incision* fill'd up with some spirituous diffusive *Application*; or a hot *Iron*, which exceeds all others, may be clapt down upon the *Part*, to prevent its farther spreading: And after digesting of the *Eschar*, with the like *Applications*, as directed for *Gangrena*, such as the *Unguent. Ægyptiac.* also the *Unguent. fuscum* of old *Fælix Wartz.* to which a little of the *Ol. Terebinth.* or *Tinct. Myrr. & Aloes*, may be added; as in other *sordid* and *putrid Ulcers*, not neglecting, in the mean *Time*, some *antipestilential Remedy* to be taken inwardly, that the vital *Indication* may be provided for, or the *Spirits* fortified against the *Contagion*. But I have touched upon this in my *Treatise*, before refer'd to, and therefore will leave it with this *Description*, as a *Diagnostic*, whereby the young *Practitioner* may the better know to distinguish it, when it offers to his *View*; as it is delivered by *Barbet*, an eminent *Writer* in *Surgery*, and *Practitioner* at *Amsterdam*.

There appears, saith he, in the Flesh, one large Pustule, and sometimes many smaller conjoin'd or cluster'd, which being open'd, a dusky or black Crust, as it were, comes into Sight, attended with Inflammation, Pain, Fever, and great Inquietude. This Crust removed, instead of Matter, a spongy, cadaverous, or rotten Flesh presents it self.

But

But of the Nature and Manner of Production of these *pestilential* Diseases, we have spoke in the same Tract; and shall therefore here finish our Account of the *acute* inflammatory Tumours, subjoining first this short *Prognostic* to the foregoing.

The *Parotis* will admit much the same as the *Bubo*, being frequently *malign*; the *Carbunculus*, the worst of all, partaking of the highest *Contagion*, and therefore generally proves a mortal Symptom. The other glandulous Affects, being more *benign*, have much less Danger, tho' none of them ought to be repell'd, but either resolved, as they are sometimes, or brought to *Suppuration*, as most commonly.

We shall now come to observe the *cold* and *chronical* Tumours, among which first of all,

Of the SCROPHULA, or STRUMA, commonly call'd the KING'S EVIL.

These are in the Greek named χοιράδες, a *Porcis*, *Scrophula* from the Hogs, with which Distemper it is said *and Stru-* commonly this Creature is affected, whose Flesh, it *ma.* must be own'd, is sometimes observ'd much fuller of these interspersed *Glands*, than that of other Creatures; but what Affinity they have with our *Strumæ*, being unaccompanied, so far as I know, with any other of the Symptoms, I cannot say, nor do I think material.

The *Struma* we define a *hard glandulous Tumour*, usually of the same Colour with the Skin, seated principally on the Sides of the Neck, about the *Musculi Mastoidei*, behind the Ears, and under the Chin, either more or less moveable, single, of the *conglobate*, or in Clusters of the *conglomerate*

Kind: It being often observed in some of these Patients, to have them thus contiguous from the Ear down to the Clavicle.

I said principally, altho' there is scarce any Part of the Body, wherein these *adventitious* Glands, in some Habits, may not be found; nor are the *Viscera* secure from the same Malady, especially the *Mesentery* in the *Abdomen*, and the Organs of Respiration in the *Thorax*, which are found upon the Dissection of *strumous* Persons. So that when the Disease is arriv'd at any Height, we may reasonably surmise the first of these to be affected, by Means whereof the *Chyle* being intercepted in its Passage to the common *Receptacle*, and the *Lacteals* compress'd, a Rupture sometimes happens of those tender Vessels, and a *chylous Dropsy* ensues, which I have discover'd diverse Times; or a *Colliquative Diarrhea* thence arising, brings on a *Marasmus*, and destroys the Patient: The last may be inferred from the *σπασμός*, or streight Breathing, with a dry Cough often attending.

*The Glands
the chief
Seat of this
Disease.*

That the Glands either *natural* or *adventitious*, are the common Seat of this Malady, is beyond Controversy: But the Manner of their Production, out of what Juices, and by what Vessels convey'd, not so easy to determine.

*Dr. Wharton's
Opinion of this
Disease.*

Dr. Wharton that strenuous Patron of the *Succus Nutritivus* of the Nerves, will have these to be the Instruments of Conveyance; for having discharg'd both *Artery* and *Vein*, as well as the *Lymphatic* Vessel entering the *Gland*, and believing the *Gland* it self, into which this latter deposits the *Lymph*, in order to its Conveyance to the *Receptaculum*, must needs be destin'd for some other Use, viz. that of secreting the nutritious Juice: Otherwise, saith he, the said *Lympha* might have taken a nearer Journey to the

Store-

Store-house, without calling in at these *Diver-ticula*.

This learned Man, I say, having thus clear'd the Way for his own *Hypothesis*, proceeds thus, as I shall insert in his own Words *.

‘ Nervus itaque restat perpendendus; supra monstravimus familiaritatem magnam & Commercium inter Nervos & Glandulas intercedere. Nervosque aliquid vel adferre ad illos, vel ab iisdem auferre. Impossibile autem est, ut Nervi ab his glandulis aliquid auferant, priusquam ipsæ existant; sed necesse est, aliquid adferant, ut Materia suppeditetur, ex qua fiant. Succus quem Nervi expuunt, multo delicatior molliorq; est sanguine, multoque similior materiæ spermaticæ. Si ergo contingat, nervi turgentis & repleti extrenitatem, effundere materiam ejusmodi in Carnium interstitia, materia sic effusa statim formationem molitur, & primò Cystim, sive Amiculum, quo tanquam Corio involvatur, effingit. Quia vero nova subinde materia e nervo huc confluit, fit, ut Cystis hæc sensim distendatur, cumque ex ipso augmento necessario extremitates Arteriarum & Venarum proximas, aliquatenus comprimat, accidit ut libero Sanguinis transitu, nonnihil impedito, aliqua ejusdem Portio in tunicam formatæ Cistulæ derivetur, novosque in eadem Rivulos exculpat, qui postea in arterias facessunt: Quia vero pars in quam hi Rivuli immittantur, virtute formativa prædita est, ne sanguine jam effuso opprimatur, Rivulos alios venales efformat, per quos in extremitates venarum circumjacentium superflua ejusdem portio exoneretur: Atque adeo habemus primum Glandulæ de novo pro-

* *Adenographia* apud nos, p. 245.

‘ ductæ Rudimentum, ejusque generationis mo-
 ‘ dum, partem mittentem, nervum nimirum, par-
 ‘ tem vivificantem, Arteriam: Partem exoneran-
 ‘ tem, venam; item materiam missam, Albumini
 ‘ ovorum similem; partem recipientem, Car-
 ‘ nium interstitia; & specialius tunicam imme-
 ‘ diate eandem materiam, ceu ovum de novo for-
 ‘ matum, investientem.

From this *Hypothesis* of the nervous Channels, taking up and unloading themselves in the Interstices of the carnous Fibres where they terminate, he deduces the Facility of the Translation of these *adventitious* Glandules from one Part to another, or of their sudden disappearing in one Place, and rising soon after in another. *For if, saith he, the Nerve be overcharged, it can easily spew out some Portion of that Humour, with which it abounds, into the Parts wherein it terminates: As again, when it falls out, the same Nerve to be emptied or unloaded, it can as readily take up the same Juice it had before discharged, and convey it either to its proper Emunctory, or to some other neighbouring Part.*

Hence also the Reason, why, when the tough and viscid Humour of these Glands, is broken and dissolved by the *mercurial Globules* in the taking of *Calomelanos*, or in rubbing the crude Quick-silver into the *Pores*, they are easily suck’d up by these nervous Tubes, and conveyed to their proper glandulous Emissaries in the Mouth, where they are drain’d off in a continual Rivulet of *Lymph*, till the morbid Particles being this Way fecerned, there remains no more to be thrown out, when the Glandules contract their *Pores*, and having done their Office, shut up, as it were of their own Accord.

But waving any farther Account of this Matter, and referring such as are more particularly desirous to inform themselves of this Gentleman's Sentiments, relating to the same, to the foresaid Treatise; I shall speak a few Words concerning the *Prognostic*, and proceed to the Cure.

As to the first, this Distemper admits of an *Prognostic*: uncertain Event, according to its different Nature and Degrees. Thus if the same be *hereditary*, or arrived to any Heighth, the *Mesentery* is, as before observ'd, commonly obstructed, and the Patient dies *tabid*: Or if the Joints are affected, as they frequently are, with *white Swellings* so called, the Bones are generally fouled, before the Matter appears outwardly, and the Ligaments rotten. No better is to be expected; where it has taken hold of the small Bones of the *Carpus* and *Metacarpus*, the *Tarsus* or its *Metatarsæ*, known by a Thickness of the Joint, Finger, or Toe affected, even before it inflames or suppurates, when it proves a Work of long Time [these small Bones, as well as the Heads of the Joints, being difficultly exfoliated] and very uncertain in the Issue or Conclusion.

On the other Side, if there appear only some *glandulous Swellings* under the *Chin*, or about the Neck, provided they are securely situate, if they resolve not under a *Physical Régimen* and suitable Application, they may be taken out by Incision, or wasted by *Escharotic*, and the Patient thereby freed of the Distemper; tho' perhaps some unseemly *Stigma* may remain after in the Room of a *Cicatrix*.

The Indications for the Cure of this Disease, *Cure in gê* we shall find perhaps the same, whether its *Orignal*:
gin lies in the said *Juice* of the *Nerves* distem-
per'd,

per'd, or as we rather conjecture in some particular Acidity, or somewhat of Kin thereto, in the *Serum* of the Blood, or in some Fault in the *Lymph*, as others; since before we can gain any Ground upon the same, the *Dyscrasy* of this *Succus* in the one must be amended, whilst the Acidity in the others, is corrected; especial Care being taken for a future Supply of such a sweet, temperate and wholesome chylous Juice, out of which all are derived, as may cut off any future *Fomes* for the Disease: Indeed, without altering the Juices of the Blood in general, we are like to gain very little Ground, there being scarce any Part of the whole *Fabric*, which, in its Perambulation, it doth not at some Times call on.

The Symptoms enumerated.

Thus in the Eyes, it shews it self in a troublesome *Ophthalmia*, producing in the Corners thereof both the *Anchylops* and *Ægylops*; in the Lids, the *Epiphora*, and *Lippitudo*; in the Nose, the *Ozæna*; in the Lips, the *Labrisulcium*, or thick pouting Tumour, especially of the upper, with a Chap or Cleft in the midst thereof: On the Inside of the Throat, the tumefied and *sarcomatous Tonsillæ*; under the Tongue, the *Ranula*; on the Wind-pipe, *Bronchocele*; these two being by some reckon'd [but I think not rightly] among the *strumous* Affects; under the Chin, and on the Sides of the Neck, the *Strumæ* properly, and which is, as I may say, the great *Pathognomonic* of the Distemper in general; upon the Membranes of the Muscles, the *Gummi*; upon the Tendons, the *Ganglion*; tho' the first of these is rather an Attendant upon the *Lues venerea*, the last also commonly owing to some Wrench upon the Part: But on the Joints we have the fixt immovable *white Swellings*, the indisputable Offspring of the Distemper; and besides

sides the external Parts of the Body disfigur'd by those *adventitious* Glands, some of the internal also, as we have already taken Notice, interspersed therewith. What shall we say, when we find the very Marrow of the Bones infected, nay, the Solidity of these Parts themselves not Fence sufficient against the Acrimony of these Humours? Witness still the worst of all, the *carious Ulcers* and terrible *Exostoses*; Witness, the formidable *Spina Ventosa*, where the *corroding Solvent* beginning inward, preys upon the Bone like an *Aqua Stygia*, *sive fortis duplex*, penetrating the inward *Lamelle*, eating through the outward *Cortex*, and this even in the largest Bones of the Body: So that in this particular, for its corrosive Nature, it may be said to come up with, and even far to surpass the *Pox* it self, altho' the acrimonious Salts, by which they act, are of a diverse Nature, as appears in the Method of their *Cure*.

Since then this *Gigantic Disease* requires some *Herculean Force* to subdue it, a *mercurial Salivation*, as for the other has been propos'd, and practis'd oftentimes for that Intent; I wish I could say, for my own Part, with the Success I had expected: Having, for some Years past, found more Benefit from a *mercurial Medicine* given between Whiles, and purged off again, together with proper *Alteratives*, than by the same continued, in Order to raise a *Ptyalism*: Nor can I believe this Remedy to be, what is commonly call'd *Specific* in the *Strumous*, as it is found in the *venereal Affects*, where we meet with so general an Advantage from its Exhibition.

When the Disease indeed is recent, and the Stuffing of the Glands rather humoural than fleshy, a *Colliquation* or melting the viscid Hu-

mour by such Means may dispose them for Evacuation by some proper *Cathartic*: A strict physical Course being after continued, to alter the Blood, and promote the due glandular Secretions; but otherwise in the common Course of Spitting, the *strumous* Salts not being so suitably adapted to, or lick'd up by the *mercurial* Particles, as the *venereal* are found to be, and more of the *nutritious* ones being together drain'd away, the Blood is hereby impoverish'd, and either a *nervous Atrophy* ensues, or a *pulmonary Phthisis* comes on, and destroys the Patient.

Nor should it seem strange, to find the Lungs affected in this Disease, the Structure thereof being *glandulous*, much favouring the *strumous* Production: It being very common to have *Tubercles* of several Sorts engendred therein, in some of which I have found upon cutting into their *Cystæ*, the like Contents, as in the *Atherome*, *Steatome*, and *Meliceris*, is observed; whilst in others, a *cretaceous* Substance, like that in the *Internodes* of some *Arthritic* Persons has been discover'd; but to come more strictly to the Cure in general.

Venæsection, unless to take off some feverish *Effervescence* arising in the Blood at some times, is in these Cases not so absolutely requir'd as *Purgation*, which is to be repeated at proper Intervals, according as the Patient's Age, Strength, and Habit may allow, with some of the same *Phlegmagogues*, directed for *Oedema*, unto which *Calomel* is to be adjoin'd, on Account of its attenuating Property, and its Fitness to reserate, and scour the obstructed *Glandules*.

In the mean Time, unless the Habit be very thin, and the Patient disposed to a *Hætic*; Let his Diet be rather drying than moistning, prepar'd of such Aliment as affords a sweet and pure Chyle; a-
voiding

voiding all gross, obstructing, or phlegmatic, such as Fish, especially those in standing Waters, Cheese, all smoak'd, season'd, or dried Meats. Pork likewise by some, how justly I cannot say, is forbidden strumous People: Neither will Milk, which is necessary to be heeded, be found always agreeable in these Cases, from which I have known not only the outward Strumæ much increased, but the Mesentery also stuff'd with the like Glands, and the Consumption thereby hastned, for which the same had been inconsiderably prescrib'd.

By *Alteratives*, I mean, whatever has a Power of correcting this particular *Dyscracy* of the Juices, and opening the obstructed Tubes, without any sensible Operation.

Among these, a Decoction of the Woods, claims *Antistru-*
matics. a Præheminence; to which are added one or other of the *Specifics*, so called, such as the *Rad. Scrophulariæ, Filipendulæ, Succisæ, Saponariæ, Bardanæ, Cort. Juglandis Arboris, Herbæ, Jacobææ, Geranium Robertianum, Chelidon. maj. Cynoglossium, Mar-rubium album, Digitalis*, with some others of less Note.

In these Decoctions, it is very common to put also a Lump of crude *Antimony*, of four Ounces, or ℥ss. Weight, grossly powder'd and tied up in a Rag; in giving particular *Rs.* For which, I think it needless to spend your Time. A *Specimen* you have thereof, in Dr. Fuller's *Decoctio Liberans*, and his *Decoctum edulcorans*, of a Diet, in his *Cerævisia ad Scrophulas*, and his *Decoctum ad Strūmas*.

For such as are not able to be at the Expence of these, or unwilling to be at the Trouble of preparing them, which must be continued for a long Time, I have frequently order'd a Solution of the *Calx viva*, ℥j. to a Gallon of Spring-
Water,

Water, which being decanted, two or three Ounces of the *Rasuræ Ligni, Sassafras*, with $\text{ʒ}\beta$. or $\text{ʒ}j$. of the *Rad. Liquiritiæ* sliced, may be steeped therein; these not only taking off the brackish Taste, and changing it for one more pleasant, but giving likewise a very agreeable Smell and Colour to the same.

As to the cold Infusion of these Drugs, prescribed by some *Physicians*, I must confess, I think the Cost ill bestow'd, the Water being before saturated with the Salts of the Lime, and the Woods too compact to yield any Virtue this Way, which require a Decoction of many Hours, with as many taken up in a preceding hot Infusion, preparatory thereto: For which Cause, when I would have the Water more thoroughly medicated therewith, I either order them to be boil'd in an *Aq. Calcis*, somewhat weaker, prepared for the Purpose; or having made the Decoction in Spring-Water, to each Quart thereof, half a Pint of the common *Aq. Calcis* may be added: And thus the Salts of the Lime being communicated to the Blood, are admirably well fitted, as Dr. *Morton* has taken Notice in his Discourse *de Phthisi*, by their *Alkaline* Property, to obtund the acrid Particles therein, and to precipitate the same; having done as great Service in these Cases, if not more, than many other more pompous Forms of Remedies.

Besides these Liquors, which are to be taken as a *Diet*, there are moreover other Medicines to be prescribed, for the same Intention of altering and sweetning the sharp Juices: Such I mean, as the *Antimon. Diaphoret. Bezoard. Minerale, Æthiops. Mineral.* the Gum of *Guajacum*,

As

As for the *testaceous* Powders, tho' I believe them very proper to sheath the Points of the offending Acid, at leastwise blunt their Force, and to edulcorate the sower Humours lodg'd in the *Primæ Viæ*, the *Ventricle*, and *Intestines* : Yet by Reason of their Grit, or exceeding Hardness, unless very finely levigated, I should suspect their Passage thro' the *Lacteals*, or passing, their being coacervated in the *Mesenteric Glandules*, as I remember once to have found them in a *strumous tabid* Patient upon Dissection, who had taken great Quantities thereof.

I have therefore a better Opinion of the *A-selli* or *Millepedes*, being suited by that Plenty of volatile Salt they contain, and the Tenuity of their Parts, to incide the viscid Humour, and to open these glandulous Obstructions, passing them off by Urine. Hence with good Success they are usefully prescribed, not only in these Infarctions, but for *attenuating*, *absterging*, or *cleansing* all *mucilaginous* and *tartarous Concretions* upon the *Viscera*, which they precipitate the same Way.

The Method of prescribing them is, after they are washed and dried, to bake them in an Oven, and reduce them into Powder, which is given from \mathfrak{zj} . to $\mathfrak{z}\beta$. in any convenient Vehicle, such as White-wine ; but their Infusion alive therein, and taking the Expression, is much preferable : Thus \mathfrak{zj} . or $\mathfrak{zj}\beta$. of the live *Millepedes*, may be steeped in a Pint of good White-wine, and two or three Spoonfuls of the Expression, given for a Dose, twice a Day ; or the swallowing a Score of them at a Time, which is easy to many Persons, whereby their volatile Parts are preserved ; impaired otherwise, if not destroyed, by the Heat of the Oven.

I shall

I shall trouble you with but one more Remedy, and that is the *Lapis Spongiæ*, or *Sponge Stone*, with the *Sponge* it self calcined : Which I have experienced in these Cases [and have known it succeed with some other Practitioners] among which, give me Leave to relate the following, in as few Words as I can.

HIST. XI. A Country-man, about thirty Years of Age, presented himself to me for Advice, with both Sides of his Neck [where the *Strumæ* were placed *racematim*, as I may say] like a Bunch of Grapes, but more fitly compared to that of *Turneps*, with which extending forwards, the *Larynx* was so compressed, as to endanger Suffocation. He had the like *Glands* upon the *pectoral Muscles*, about the *Axillæ*, with other *ganglionide* Tumours on his Arms and Wrists: A Case so pertinacious, and by many Years riveted, that fearing I should do little good with him, I prescribed a *Diet* of the *Woods*, with some *Antistrumatics* ; Purgation with *Extr. Rud. & Merc. dulcis*, between whiles ; also an *alterative* Electuary of *Gum. Guajac. Æthiops. Min. Pulv. Millep.* made up with the *Cons. fruct. Cynosbat.* together with a Roll of the *Empl. de Ranis cum dupl. ♀* . to be applied externally upon the *Glands* Plaister-wise, and renewed as there was Occasion ; returning him back into the Country, where before his coming up, I might have told you, he had been salivated, and had spit plentifully for thirty Days ; notwithstanding which, the Distemper gained upon him, and grew worse than before.

But growing weary of Method, he quickly after threw all aside ; till meeting in Company with one who had laboured under the like Malady, and had got his Cure by a Remedy under which

which he liv'd at large, without *Regimen*, he procured from his Correspondent here in Town, some of the same for our Patient ; being a large Gallipot full of a dark or blackish Powder, out of which he took 'a Spoonful Night and Morning in a Draught of Beer ; and finding his Kernels waste, he was encouraged to go on, especially perceiving how easily it was purchased ; his Friend making no Secret of the Matter, but frankly telling him what it was : Upon which, that he might not be farther troublesome, he desired a Relation he had here, according to the Direction given him, to buy a large Quantity of the most *gritty* or *fabulous* Sponges he could pick out, which drying in an Oven, he reduced to Powder ; and having continued taking the same for about three Months, the Glands were all dispersed, and his Distemper vanquished ; so that being in Town about some Business at the Year's End, I saw him with a smooth Neck, scarce a *Vestige* of the same remaining, having as he expressed himself, piss'd away the *King's Evil*.

Somewhat related to this, is the *Pulvis ad Strumas* of Dr. Bates, prepared of the *Lapis Spongiæ* three Parts, *Sal Gem* two Parts, *Tartar Vitriolat.* one Part ; with which I have done Service also in some of these Cases : But whoever thinks hereby that he has got a Medicine infallible, will, I can assure him, find himself mistaken. *Grulingius* prescribes it thus :

℞ *Spongiæ, Lapidis Spongiæ, Pumicis* ā p. æ.
Calcinentur & *capiat* ʒj. *pro Dosi* ; *bis in Die*
cum potu Dietetico.

In another Part of his Writings I find it thus :

℞ *Sal. Pumicis* ʒß. *Sal. Gem.* ʒij. *Sal. Tart.*
ʒj. M. f. Pulvis. *Detur in vino, vel Aq. Schrophulariæ,*

phulariæ, incipiendo a Luna decreſcente ad novilunium.

For the ſame Purpoſe, in another, I find this:

℞ Pulv. Radic. Gladioli ꝑ℞. ſumat in Cochleari Syrupi Violarum, omni Mane per Menſem.

I come now to the *topical* Application, or the *Topical Medicines*. *Chirurgery* more eſpecially required in theſe tumefied Glands; which we are firſt to attempt with Diſcutients, and Emollients of the ſtronger Sort, as were directed for the *Schirrus*. The *Empl. de Ranis cum Mercurio* is frequently applied for this End, as alſo that of the Gums, *Ammoniacum*, *Galbanum*, *Bdellium*, to which the crude Mercury may be added. Some neat Forms of which are to be met with in Dr. Fuller's *Empl. Antimoniale*, and his *Linimentum de Bryonia* preſcribed for the ſame Purpoſe; as alſo in Bates's *Empl. ad Strumas*, and *Diagalbanum*, with his *Unguent. Digitalis*.

But truly the Succeſs attending theſe Applications, in the more ſtubborn and confirm'd *Strumæ*, is not always answerable; for we often find, notwithstanding all we can do, our Expectations fruſtrate.

The following is taken from *Zacutus de prax. admirabili*, Vol. 2. Lib. 1. *apud nos*, p. 24. Obſ. 101. which by Reaſon of his ſo ſtrenuouſly vouching for its Infallibility, I have here annexed, & penes Authorem ſit fides.

℞ Rad. Bryon. magnæ, bene Nutritæ & rotundæ, ponderis ℥℞. ſeca in taleolas Minutiſſimas, & frige cum Olei Olio. rec. ℥iij. quouſque ſiccentur, & contabefcant, Cola, & addendo Terebint. Abietis ℥℞. Cera. Citrin. ꝑ℞. ab igne remota f. Unguentum viſcidiffimum, quod nunquam [inquit Autor] teſtor Deum, in ſchrofulis, me feſellit.

When

When they discontinue, but inflame, the best we can expect, for the most part, is a superficial *Suppuration*, leaving their Basis to be after eradicated by *Escharotics*, a painful and tedious Work ; and whilst we are doing which, other *Strumæ* frequently arise upon the adjoining Parts. Wherefore, if the *Gland* be well conditioned, seated free from the large *Blood-vessels* and *Tendons*, and slips about under the common Teguments : The best and easiest Way also, is to take the same out whole by Incision, either *longitudinal*, if it be small, or *crucial*, when of the larger Size. After which, the Lips of the Wound being laid down again, are to be digested and agglutinated, as in other Wounds thus made shall be hereafter directed.

But when by Reason of their lying under, or upon some *Vessel*, as in those about the *Jugulars* often falls out ; or among the *Tendons*, as on the *Metacarp* and *Metatars*, we must, if they happen to burst themselves, be content to level them the best we can by *Escharotics*, still repeated as the *Sloughs* throw off ; till we have consumed as much of the *Gland*, and gone as deep as may be safely adventured ; when probably some powerful Desiccative may induce a *Cicatrix*, which may so tye down the Remains, as to create no farther Trouble ; and if the same be not so smooth and even, as in other Wounds and Ulcers, the Patient must take it as it falls out, the utmost of our Art being unable to prevent some rugged, and less seemly Scars, after this Distemper.

The Method of thus wasting them, and with what *Escharotics*, I shall lay down when I come to speak of *Ulcers* with *Hypersarcosis*, concluding in the mean Time this Head of the Disease relating

ting to the *strumous Gland*, with this farther Admonition to the young Artist, That if at any Time the same begins to inflame [a Sign that it will suppurate, tho' it may be long first] the Discutients being laid aside, let the stronger emollient Suppuratives be applied, as the *Rad. Lill. alb. Bryon. Altheæ Cyclam. Cucum. Sylv.* to which you may add the *Fici ping. Stercus Columb.* and if the Progress be very slow, for stirring up the sluggish Humour, and rousing its Heat, the *Rad. Pyreth. Sem. Staphidis & Sinapios.*

Caution.

Again, be sure take Care to defer letting out the Matter as long as possible, still remembring, *quod Pus generat purem*, or that Matter begets, at least increaseth more: So that the more of the Gland you can get to suppurate, the less you will have to do with your *Escharotic* or *Catheretic* Medicines, to wast the Remainder, when probably your *Præcipit. rub.* alone, or mix'd with the Digestive, may accomplish the Work, and by the Assistance of your Desiccative, finish the Cure.

It would take up too much of your Time, and swell this Section beyond proper Bounds, should we run through a Description and Method of Cure at large, for all the several *Species* of this Disease: However, that we may render our *Idea* of the same as serviceable as we can, we shall briefly handle the most remarkable in the same Order we have already recited them, beginning with the *Ophthalmia*, or Inflammation of the Eye.

Strumous
Ophthalmia,
its
Signs and
Cure.

An *Ophthalmia* is supposed to be strumous, when it has been of long standing, arising without manifest Cause, and yielding not to the common Remedies of Bleeding, Blistering, Purgings, with the anodyne Gollyria, vulgarly prescribed.

It

It is known to be so, when complicated with a thick chapt Lip, a crusty scabbed Nostril, especially if there be any strumous Glands about the Sides of the Neck, or under the Chin.

In the Cure of this Inflammation, the same *Antistrumatics* are to be directed, as we mentioned before for the Disease in general; unless that in Place of the hotter *Cathartics*, the more lenient and gentle Purgation is by some prefer'd, giving *Calomel.* over Night, and purging it off therewith next Day, or the Day after; repeating the same once, if not twice a Week: And remembring that on the purging Days, especially if the stronger have been administred, some gentle *Anodyne* is given at Night; such as that of $\zeta\beta$. or $\zeta\upsilon j$. of *Syrupus de Meconio* in ζj . or ζij . of the *Aq. Flor. Paralyf.* or the *Aq. Papav. alb.* On the intermediate Days, the Expression of the *Millepedes* may be given as above directed.

As for *Topics*, having made all the suitable *Revulsion* and *Derivation* of the Humour, by *cupping on the Neck and Shoulders, bleeding with the Lancet in the Arm and Jugulars, with Leeches to the Temples and behind the Ears, Issues also inter, or rather supra Scapulas, or the Seton subter Nucha*: The Applications are to be proportioned to the several States of the Inflammation; thus, *in the Beginning*, all *Epithems* or *Collyria* are to be moderately *repercutient*, such are prepared *ex Aquis Rosar. Plantag. Sperm. Ranarum, cum Aqua ex Album. Ov. conquassata, extracta.*

To these are added the most subtile levigated Powders, *de Lapide Tutie & Calaminari*, the *Sief Alb. Rhas.*

In the *Increase, Digestive, and Resolving*, mixed with the former; among these are reckon'd the *Aque Eupbragie, Ghelydonii, Feniculi, cum Muci-*

Mucilaginibus Sem. Lini. Fœnugrec. Althææ : To which, in the State, are added the *Gum Sarcocolla cum Lacte Nutrit.* as more powerfully digesting than some of the other. Again, in the Declension, *Resolvents* with *Restringents*.

When great Pain attends the *Fluxion*, some mild and *anodyne Collyria* are most convenient; such are the *Mucilagines Sem. Malvæ, Psyllii ac Cydon. in Aq. Papav. extractæ* : Also the *Lac Mu-liebre ex Mammis in oculos recenter Multum, Sanguis Columbinus instillatus. Item Mucilag. Sem. Papav. & Hyosciam. alb. in Aq. Rosar. extractæ*, to any of which may be added, in Case of extreme Pain, a few Grains of *Opium*.

When there is great Heat, Itching and Redness, a little *Saccharum Saturni* ℞. to ℥ij or iij. of the *Collyria*, with gr. j. ij. or iij. of the *Vitriolum album*.

Whilst these are in Use, *Intercipients* may be laid to the Temples, *ex Gummi Mastiche vel Tacamahacca, una cum granis aliquot Opii & Camphoræ simul liquefactis, & supra Alutam tenuem Circularis figuræ extensis.*

Epithemes also to the Forehead, in the Nature of the *Oxythodine* of the Antients, or *frontal Defensatives*, *ex Bolo vero, Sanguine Draconis, Thure cum Albuminibus Ovorum, Aceto, Rosarum, & Farina volatili, or the Albumina Ovorum cum frustulo Aluminis rup. agitata.*

Which last Sort are to be frequently renewed, as they grow stiff and dry.

Instead of these, more especially over the Eyelids, may be applied *Cataplasms*, *ex Pulpa Pomorum acidorum sub cineribus coctorum, cum aliquibus ex Mucilaginibus supradictis mixta, or a Decoction ex Fol. Ros. rub. Flor. Sambuc. cum Mica Panis albi, vitello Ovi & pauculo Croci additis.*

A *Fotus* of the same Decoction may be yet farther serviceable to resolve the *Tumour*, and give a Breathing to the Humour impacted, if judiciously prescribed: And where the *Cilia*, or *Eye-lashes* are apt to be glued together, as very commonly happens after Sleep, the same are to be lightly smear'd with a Feather dip'd in the *Un-guent. Tutie*, or my *Cerate de Lapide Calaminari*, dissolved in a Spoon for that Purpose, upon going to Rest.

Whilst these are applied *locally*, there are more-^{Oxydor-} over some other Internals to be prescribed, which ^{cica.} from their supposed Faculty of strengthning the Sight, are named *Oxydorcica*; some Forms of which you may meet with in the *Cerevisia Oxydorcica*, *Pulvis Cibarius*, *Pulvis Ophthalmicus*, and the *Elect. Oxydorcicum* of Dr. Bate.

What *specific* Virtue there may be in the *Euphrasia*, the Basis of these Compositions, I am uncertain; but should always advise the *Millepedes* afore-mentioned to be mixed with these Compositions, or added to the other Ingredients: And truly, if the *Ophthalmia* be *strumous*, the other *Alteratives* before-recited seem preferable, to correct this particular *Dyscrasy* of the Juices, altho' I shall not oppose the rest being directed between whites.

If there should happen any Danger to the Sight, by Speck or *Suffusion* on the *Pupil*, some gentle Deterfive may be drop'd in, as a *Collyrium* prepared *ex Sacch. Cant. albo, cum granis aliquot Sal. Armoniaci vel Vitrioli albi*, dissolved in *Aq. Feniculi, Verbenæ, Euphrasiæ, Chelidonii*: The Juices also of those Plants are often mixed with Honey, and made into a *Liniment*, or with the fine Powders of *Myrrh* and *Aloes*, also the Wa-

ter distilled from Honey is recommended for these Uses.

I have seen very good Effect from the subtile Powder of *Crocus Metallorum*, infused for some Days in either of these Waters, ʒß. or ʒj. to ʒij. of the same being poured off clear at the Time of Use. But there are many Compositions for this End interspersed in Physic Books; some proper *Formule* you will meet with in the *Collyrium Armoniacum*, *Collyrium de Succis*, and the *Collyrium Vitriolicum* of Dr. Fuller's *Pharmacop. extemp.* and a very celebrated one in the *Aqua Ophthalmica Sapphirina*, so called from its Colour, in Dr. Bate.

And thus much of the *strumous Ophthalmy*; wherein, however short, I think there is enough said to convince the thinking Part of Mankind, how little Regard is to be had to the most famed Eye-Waters, or Salves, for all Diseases indiscriminate of this Part, which require so much Variation, and so exact a Judgment in proportioning their Strength, and directing their Virtues, so as to answer the several Indications of *repelling, resolving, and digesting* the Humours offending in the several Stages of the *Inflammation*; much above the Reach, I am sure, of all our *Quacking Oculists*, who at Adventure try Experiments upon deluded People, that consult them.

*A Persua-
sion to Sur-
geons to en-
terprise the
couching of
Cataracts.*

Being got upon this Theme, I cannot choose but admire that none of you, Gentlemen, who are so well acquainted with the Structure of this noble Organ, should take upon you, among other *Chyrurgic Operations*, that most noble one of *couching the Cataract*.

'Tis you, indeed, that are alone qualified: But the Fear of miscarrying at the first setting out, and Loss of Credit thereby attending, as also that it might lessen perhaps a general Practice, should

should you become conspicuous for this, has, I doubt, withheld you, and made Room for those bold Intruders, who assuming the particular Name of *Oculists*, are daily committing the most irreparable Mischief, as I could evince, if there was Occasion, and Time permitted, from many, very many, Observations of my own, upon their Ignorance as well as Knavery. One of the most noted of these Men, in some Discourse I had with him, acknowledging ingenuously his Ignorance in any *Theory of Vision*, the *Mechanism* of the *Organ*, as to its Coats and Humours, and the Nature or Propriety of Medicaments, rightly suited for removing the several Diseases thereunto incident; affirming farther, that if he succeeded once in the Operation of penetrating the *Cornea*, and depressing of the *Cataract*, in ten Times, it was as much as he desired; that one extolling him more than the other nine could sink his Reputation: Whereas, continued he, if such as you were to undertake this Work, and could not recover nine in ten, you would be accounted Bunglers.

Thus do these People plead a Sort of Privilege to play the Knave, and having so done, an Exemption not only from Punishment, but even from Disgrace.

Let me then conjure you, Gentlemen, no longer to neglect this Operation, nor to suffer the most gentle Part of your Art to be usurped by these intruding *Impostors*, who leaving their proper Occupations, turn *Eye-Quacks*, altho' they know nothing of the sublime Subject they work upon, no more than of the *Materia Medica* with which they work.

Your Predecessor, Mr. *Banister*, made himself famous in this Way, who yet was brought

up to general Practice, and continued therein, till the Multiplicity of this Business diverted him therefrom.

He wrote a Treatise above a hundred Years ago, of the Diseases of this Part, the Eye and its Coverings, which he numbers up to 113. Since him, unless Master *Turbervil*, we have had few Persons of Learning or Education, who have cultivated this most useful and ornamental Part of *Chirurgic Practice*, tho' several who have well described the Organ, as Dr. *Briggs*, and some other curious Anatomists.

*Cataract
and Suffu-
sion.*

Dr. *Pitcairn*, in his Account of a *Suffusion* or a *Cataract*, hath taken Notice of a vulgar Error that hath long prevailed among us, in Relation to this Affect, which being short, I shall lay down in his own Words, or therewith corresponding.

‘ There is, saith he, one inseparable Sign of
‘ a *Suffusion* or *Cataract* taken Notice of, as
‘ well by others, as *Plempius* [who by the Way
‘ has wrote admirably well of the Diseases of this
‘ Part] which I would have noticed by all who
‘ study the Nature of the Eyes, not to agree in
‘ any Respect at all to a *Suffusion*; for they af-
‘ firm a *Suffusion* to be then drawing on, when
‘ various Representations float before the Sight,
‘ as *Hairs*, *Dust*, and the like; which Appear-
‘ ances are, in the Opinion of all *Physicians*, a
‘ true and legitimate *Suffusion*, if they are repre-
‘ sented continually without any Intervals.

‘ These Representations they ascribe to Cor-
‘ puscles floating in the *aqueous Humour*, which
‘ by increasing, form the *Cataract*: Some also
‘ ascribe them to the Condensation and Coagu-
‘ lation of the *aqueous Humour*, and others to
‘ that

that of the *chryſtalline* ; but all theſe know nothing of the Nature of the Eye.

For ſuch Corpuscles floating in the *aqueous Humour* or *chryſtalline*, either are not perceiv- ed on the *Retina*, nor any Thing adhering to the exterior Surface of the *Cornea*, nor a *Cica- trix* therein, can make the Representation of any Image on the Bottom of the Eye ; whence neither one nor more of theſe can be the Cauſe of the Appearance of little Bodies ſwimming about, as it were, in the Air : For ſuch is the Convexity of the *Cornea*, and the Poſition of the *Retina*, that an Object muſt be placed at a greater Diſtance from the *Retina*, than the *Cornea* is, in Order that its Image may be diſtinctly painted on the Bottom of the Eye, that is, that all the Rays proceeding from each Point of a viſible Object, may converge to as many Points on the *Retina*; whence there is no Point in a viſible Object from which Rays flowing do not, at leaſt ought not, to touch every Point in the *Cornea* ; therefore, unleſs all the Rays emitted from each Point of an Object, are collected in one Point of the *Retina*, they will not be of ſufficient Force to repreſent there the diſtinct Appearance of the Points, *i. e.* the Image of the Object. But it is im- poſſible this ſhould be effected, according to the Rules of *Optics*, if the Object be too near the *Retina*, or not remov'd from it a ſufficient Diſtance.

Hence it follows, that if the Beginning of a *Cataract* is accompanied with the Repreſentations of Images floating about, then there is alſo in the Eyes a *Gutta Serena* ; and in ſuch a Caſe, altho' the *Cataract* be removed by a Surgeon, yet an incurable Blindneſs will enſue,

‘ which often happens, and seem’d to be the
 ‘ Case of the Patient of *Timeus*, in p. 55. Book I.
 ‘ where the honest Man took that for a simple
 ‘ *Suffusion*, which was also a *Gutta*.

But now, tho’ we have been wanting of Men truly Learned and Judicious for this Practice, yet are we never without our ordinary *Empirical Oculists*, and of late, some extraordinary *Pretenders* thereunto: So that thro’ your Neglect of improving this Branch of your Profession, the very Name of *Oculist* has, in my Remembrance, implied little other than *Fraud*, *Collusion*, *Cosenage*, or downright picking the People’s Pockets, extorting large Sums of Money paid before-hand, and warranting a Cure, or Recovery of Sight, where the same is absolutely irretrievable. But I am very sensible I digress, and have nothing to plead for my so doing, unless a hearty Zeal for the Profession, of which, not many Years past, I had the Honour to be a Member.

The Symptoms next recited, were the *Anchylops* and *Ægylops*, Diseases of the internal *Canthus*, or Corner of the Eye, in which the *lachrymal Gland* is concerned, and from whence the *Fistula* of the same Part is called *Lachrymalis*.

Fistula lachrymalis.

Before it ulcerates, it is by the Greeks termed *ἀγκύλος*, but afterwards *Ægylops*.

The *Prognostic* may be gathered from the Method of Cure, in which, Universals premised, such as *Bleeding*, *Purging*, &c. you may attempt to resolve the Humour by some gentle *Anodyne* and discutient *Cataplasm*, such as was directed for the *Pblegmon*; but if it inflame and suppurate, you must hasten *Maturation*, as well as the Discharge, by Reason of the Part it lies upon, and the Danger thence arising by Delay in letting out the same. Having dilated the *Sinuosity*,
 and

and *digested* the little *Abscess*, you may try a *Sarcotic* of *Myrr.* *Aloes*, and *Sarcocol.* made up with *Mel Ros.* or a Tincture of the said Gums in Wine, mix'd with equal Parts of the *Mel.* But when notwithstanding your Endeavours to *incarn* and *agglutinate*, the Matter still continues to discharge, not only by the outward Orifice, but also under the *Cilium* into the Corner of the Eye, you may try some more powerful Desiccative; such is the Solution of the *Lapis Medicamentosus Crollii*, in *Aq. Plantag.* or a strong *Aq. Calcis*, assisted by suitable Compression on the Cavity, for which a late invented Instrument by the Skrew has been admirably well contrived and adapted.

These failing, it behoves you to consider whether or no you have a good Basis or Foundation to heal upon; and having made Tryal thereof by your Probe, if you discover any Roughness on the subjacent Bone, or if the same be bared of its Covering by the Acrimony of the Humour, it will be to little Purpose to proceed farther in the Way you are in, till by a fine pointed actual *Cautery* you have dried the same, and fitted it for *Desquamation*, or perforated quite through, thereby deriving the Matter by the Nostril, and disposing the *Caries* to throw off that Way; when your outward Ulcer, which before had baffled your Endeavours, will heal up with the milder *Epulotics*, or perhaps with a little dry Lint, without any farther Disturbance.

Note, That in the Use of Medicaments to this Part, you must not only have Regard to the Eye it self, so near at Hand, but to the *Gland* and its *Caruncle*; for if the same happen to be too *deterfive*, *corrosive*, or *sharp*, there may be Danger of a *Rhyas*, or Consumption of the said

Part ; as by the *Digestive* and *Sarcotic* too long continued, an *Encanthis*, or too great Prominence of the same, may ensue : For which, as *Incar natives* will be wanted for the former, so *Catheretics* may be required for the latter.

Epiphora. The *Epiphora* is another *Species* of the Disease, which by Dr. *Pitcairn* is termed *Oculorum Catarrhus*, being an Affection, as he says, of the *Tunica adnata*, and arising from the Arterial Blood, crowded and dilating the Glands there situate, having the same Cause and Cure also [as this Gentleman delivers it] with other *Catarrhs*.

But this Account suits better, I think, with the *Ophthalmia*, or common Inflammation of the *Adnata* : The Distemper here intended, being oftentimes the Result of the *Small-Pox* and *Measles*, by which *Diatheſis*, or preternatural Disposition of the Body, the Blood having contracted a *strumous Dyscracy*, and depositing some of its acrid Serum upon these Parts, their Texture is hereby vitiated ; and not only the *Glandules*, with their *excretory Ducts*, but the *Tear-bag*, as it is named by some of our modern *Anatomists*, with the *Puncta lachrymalia*, are eroded and set open, whence this *Taraxis*, or *Humorum perturbatio*, with a continual Effusion of the serous Humour, involuntarily proceeds.

In order to remedy this Malady, which is very difficult, and when of long Continuance, I think, irremediable : *Universals* being premised, such as *Bleeding*, *Blistering*, *Issues*, with proper *Purgatives* repeated between whiles, as also a strict *Regimen* in Diet, which ought to be drying rather than moistning. The *Topicks* proposed by the said noted Physician, are these :

First of all, to blunt the Acrimony of the Humour, and constringe the *Glandules*, from which
the

the same is apt to cause forth, a *Fotus* may be prepar'd *ex Decoct. Fol. Malv. Bismalv. Cort. Grana- nat. capit. Papav. alb. Flor. Melilot. Balaust. & Sem. Fœnugreci; vel,*

R. Aq. Ros. & fœniculi, a. ℥ij. Infus. Croci Metal. ʒß. Margarit. p. p. ʒij. Vitriol. alb. ʒß. Troch. alb. Rhos. pp. ʒß. M. f. Collyrium.

R. Aq. fœnicul. Flor. Chamomel. ā ℥ij. Lapid. Tutie pp. ʒß. Sacch. Saturn. ʒß. M. pro Col- lyrio.

R. Aq. Plantag. vel melius ejusdem Decoct. in aq. F. ℥ij. Aq. Flor. Chamomel. ʒj. Mucilag. Sem. Psyllii. in aq. Ros. extr. ʒij. Vitriol. alb. ʒß. M. f. Collyrium.

In the mean Time, let the Corner of the Eyes be touched with a little of the following Oint- ment, which our Author aforesaid affirms to be a most excellent one for the Purpose, *viz.*

R. Butyr. Majalis, sine Sale & Aq. Euphra- giæ prius loti, ʒiv. Tutie, p. p. Sacch. cant. alb. Pulv. & sang. Drach. p. p. ā. ʒij. Margarit. p. p. ʒjß. vitriol. alb. gr. vj. Sarcocol. ʒß. Cam- phor. ʒß. Laud. Lond. gr. iv. M. f. unguentum, vel,

R. Unguent. Pomati, ʒiv. Sacch. Saturn. ʒiß. Camphor. ʒß. M.

Or lastly, this *Cataplasma* of *Poterius* may be laid over the Eye-lids, the great Virtues of which, the same Person acquaints us, he has often experienc'd, being shifted twice a Day.

R. Pulp.

R. Pulp. Pomor. acid. in Aq. Ros. coct. ℥ij. Mucilag. Sem. Fœnugr. ℥ß. Alb. unius ovi, Lapid. Hematit. pp. ʒß, Cort. Granat. pp. ʒj. Cremoris Lactis. vel Ol. Rosar. q. s. ad Consistentiam Pultis, M.

But more of this Kind may be taken from what we have said already concerning *Ophthalmia*.

The next was the *Ozæna*, an Ulcer of the *Nostrils*, so named from its foetid or strong Scent, which if *strumous*, has usually the same Attendants for its *Diagnostic Signs*, with the *Ophthalmia*; and should more methodically have been placed among the *Ulcers*, but having a Design of bringing all the *Species* of the Disease under one View; I shall observe it here.

Ozæna.

The *Ozæna* admits of a doubtful *Prognostic*, being a stubborn Malady, hard to cleanse, so as to get a firm Foundation for healing upon, and when of long standing, a Work difficultly accomplish'd.

In the Cure, the usual Evacuations by *Bleeding* and *Purging*, may be necessary to carry off the Humour other Ways, whilst the same *antistromatic Alteratives* are prescribed, as for the other *Species*, to correct the Acrimony thereof; and having loosned the crusty Matter usually stopping up the Passage, by putting up a little Oil, a Bit of fresh Butter, or throwing up some emollient Injection, such as the *Decoct. Malvæ in Aq. Hordei*; you are, after thus digesting, to *mundify* or *deterge* by another Sort prepar'd *ex Fol. Agrimon. Plantag. Centaur. Min. Hyperic.* adding to the strained Liquor, a little of the *Mel. Rosar.* as ʒj. to ℥ß. Or if the *Ulcer* be putrid, the Tincture of *Myrrh* and *Aloes*, ʒß. more or less according to the Degree of Putrefaction, and the Sense of the Part, may be added: As also the

Unguent.

Unguent. Ægyptiacum 3j. or more, especially the *Mel* thereof fluctuating on the Top, which may be farther increased, and is a most suitable Medicament, not only for the sordid Ulcers of this Part, but of the Throat also.

The Ulcer being deterged, we may attempt to heal or dry up the same with *Unguent. Tutie*, thrust up with a Tent or some other *Epulotic*, which availing not, a stronger Desiccative must be used, as a Solution of the *Lapis Medicamentosus*, or the *Aq. Calcis*, with a little *Mel. Rosar.* likewise a strong Tincture of the *Fol. Rosar. Cort. Granat. Flor. Balaust.* made in the *Forge-Water*, or a rough stiptic Wine thrown up with a Syringe, made with a Snout for that Purpose.

But when these and other *Errhines* of the like drying Nature succeed not, we have Recourse to the *Cinnabarine Fumigation*, of which I have amply discoursed in that Part of my *Siphylis*, relating to this Symptom when it proves *venereal*.

Some have recommended the Fume of the Wax-Candle to be burn'd under the Nostril, for the same Intention, at least within Reach of the Smoak thereof.

But observe, that in setting about the Cure of this Disease, as well as the *Ophthalmy*, with certain others of the same Tribe, you must be careful to distinguish the *venereal* from the *strumous*: For, as in the *first*, we can do nothing without *Mercurials*; so in the *last*, together therewith, we are to direct some *antistrumatic* Remedies between Whiles.

The *Labrisulcium*, or chapt Upper-Lip, another Attendant on the *Struma*, is best provided for by the same internal Course, prescribed to alter and rectify this particular *Dyscracy* of the Blood

Blood and its secreted Juices, which, together with *mercurial* Purgation, oftentimes takes down the Swelling, at least for a Time, till by getting of a fresh Cold, or some other Trespals in the *Non-naturals*, a new Fluxion arises, and the Part swells up again.

The Chap or Cleft itself, may be anointed with a little *Ol. Amygd. cum Sperm. Cet. Unguent. Tutie*; or my *Gerate de Lapide Calaminari*. Dr. Bate has two Remedies in his *Dispensatory*, the one he calls his *Unguent. ad Fissuras*, the other *Ol. Tritici*, being an Oil strongly express'd from Wheat bruised, and put between hot Iron-Plates; which, however they may happen to succeed in common Chaps or Clefts in the Skin from the cold Air, to which many People are liable; yet I much suspect their Efficacy in our present Case.

Tonsillæ.

The *Tonsillæ* were the next of the *Species* we observed, which, if a Symptom of this Disease, are some Times so enlarged in Bulk, as to meet on each Side the *Uvula*, to the Hindrance of Swallowing, as well as Impediment to the Voice.

When they have been of long Standing, and continue always the same, or rather are still enlarging in their Magnitude, and arise not from the intercepted Perspiration, or common *Catarrh* upon these Parts; it is to little Purpose to go to Work with *Gargarisms*, either *restringent*, or *resolutive*, there being nothing now but *Extirpation* of the enlarged *Amygdala*, by *Ligature*, *Excision*, or their Consumption by the *potential* or *actual Cautey*, that can free the Patient from this Trouble and Inconvenience: Neither of which are yet to be enterprised, but by a skilful Hand, and after full Assurance, that there is nothing

thing *malign* or *cancerous* in the Swelling; as there is likewise a steady Hand required in the Surgeon, so also good Resolution and Presence of Mind in the Patient, at these Times, that no Disturbance be given in the Operation, especially that by *Cutting*, the Nature and Manner of which, Mr. *Wifeman*, as well as some other Writers of *Chyrurgic Operations*, before taken Notice of, have described and laid down, to whom, for greater Dispatch, we must refer you.

The *Ranula*, however numbred by some among *Ranula* the *strumous Symptoms*, is often met with, where there is no Appearance of that Illness.

It is a soft whitish, and as it were, a pellucid Tumour, seated on the sublingual Glands, on each Side the *Frænum*, or Bridle of the Tongue, sometimes on one Side only, at others, on both, extending thence to the farthest of the *Dentes molares*, and lifting up the Tongue, hinders the free Motion of the same, occasioning a thick Speech; which some have fancifully compar'd to the Croaking of the Frogs: Others, from a supposed Resemblance that this Tumour hath to that Creature, will have it thence denominated *Ranula*.

The Prognostic of this Tumour, carries more imaginary than real Danger, being frequently cut, or burned into, and quickly healed.

As for *Topicks*, it is but seldom that they gain upon the same, especially, when it has been of long Standing: However some of the volatile or of the fixt Salts, with certain Aromatics and stiptic Powders, may be held under the Tongue, to attenuate the viscous Humours and discuss the same; such as the *Sal armoniacum*, *Sal Gem. Pulv. Rad. ZZris. Caryophil. aromat. Cort. Granat. Hyssop. siccat & pulv. Gallæ, &c.*

THESE

These, with others of the like Nature, having been ineffectually tried, you are to open the Tumour, and let out the Contents, either by a pointed *actual Cautey*, which is commonly made Use of, or by Incision.

HIST. XII. Some Years ago a young Woman came to me, with such a Tumour on one Side of the Tongue, out of the Hands of a famous *Empiric*, who having got some Money of her, and not knowing what to make of it, altho' at first he had promis'd her Cure, left her off as incurable, with this sad *Prognostic*, that if it were opened, it would be present Death: I propos'd the said Opening, upon seeing what it was, but being terrified at his Words, she applied to some others, who were of my Opinion, and assured her there was no Danger: Upon which, returning to me again, I appointed the next Day for opening the same, when heating a pointed *Cautey*, whilst a Servant held her Head on each Side, another bearing hard up under the Chin, I laid my *Canula* upon the Fore-part of the Tumour, pressing it down with my left Hand, whilst with my hot Iron in my right, I enter'd the same, and instantly burn'd through the Tunic, upon which there spurted up a glairy Matter, like the *Whites of Eggs*, the usual Contents of the like Tumours; after which, I supplied her with a Lotion prepar'd of *Aq. Hord.* in which some of the vulnerary Plants had been boil'd, edulcorated with *Mel. Rosar.* to a Pint of which $\frac{3}{4}$ ℔. of the *Tincture* of *Myrrh.* and *Aloes*, had been added for the better Deterfion, and I heard no more of her in ten Day's Time, she living remote from me: When she came again, and shew'd me the Wound almost heal'd up, the *Slough* having cast off some Days before; however, in two Month's Time it fill'd again,

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emptying

emptying it self as it over-flowed, out of a small Orifice still remaining unclos'd; into this I clapt the Shank of a small Pair of Probe-Scissars, and slit up the Length of the Cavity, out of which feeling along the Wound, with more of the same Humour, I turned out a small Stone, as big as a Horse-Bean, and much of the same Shape: Afterwards I dress'd her daily with Dossils of Lint, thrust down to the Bottom of the Wound, dip'd in the said vulnerary Decoction, with equal Parts of Spirit of Wine, and about a fourth of *Mel Rosar.* giving Directions for more of the same to be laid in, as the former happen'd to slip out; and thus after few Days, the *Cystis* digesting off, and the Wound well cleansed, was after firmly *cicatrised* by some of the Decoction I had formerly used, and never afterwards created her any farther Disquiet.

The *Bronchocele* and *Ganglion*, I shall observe in the next Sections.

The *white Swellings* of the Joints are the next *White Swellings, vulgarly so called.* we shall take Notice of, and these truly are some of the stubbornest Productions of the *strumous* Disease, being rendred still worse, oftentimes by those villanous People, who call themselves *Bone-Setters*, and who seeing a full unequal Joint, presently through Ignorance of the true Cause, and designed Fraud, pronounce it a *Dislocation*, and accordingly set about an extension of the Limb, by which the Fluxion is presently increased, and *Apostemation* hastned, which might otherwise very probably have been prevented, at least kept off for a much longer Time.

The *Prognostic* of this Tumour is ever doubtful, since there is great Difficulty to disperse it, very hard to keep the same at a Stand, and if

an *Abscess* ensues, as great Danger of a *Caries* at the Bottom, rotten Ligaments, fistulous Ulcers, and in the Conclusion a *secondary* or *Symptomatical* Consumption, at best a stiff and useless Member.

So that in handling of these Tumours, if the honest Artist cannot handsomely discharge himself, let him arm his Patient or his Friends with a just *Prognostic* of what may happen at long Run: And if he is call'd in Time enough, let him apply a Defensative all round the Joint, as if the *Knee*, *Ankle*, or *Elbow*, with a moderate laced *Sock*, *Stocking*, *Knee*, or *Arm-piece*, which at some Times, when prudently managed, restrains the Humour, keeping off the Fluxion, and reduceth the Joint into better Shape as well as strengthens it.

In the mean Time, let the Physician be consulted, who may by some *antistrumatic* Course, correct this particular *Dyscracy* of the Blood, and at set Times, purge off the *Cacochymy*, with *Calomelanos* mix'd with some proper *Cathartic*. Above all, you must take Care, that you are not deceived, in taking the Case either for a *Dislocation*, or some common *Abscess*; by the one undoing your Patient by rough Usage, under Pretence of Setting a Bone that was never out: By the other treating it with *Maturatives*, and making Work for a fistulous Ulcer with foul Bones, which will never after be in your Power to heal up again. As a farther Guide in the Way of a *Diagnostic*, if the *Tumour* be of the *strumous* Kind, arising more especially from an internal Cause, there are usually some of the other Symptoms attending, as *sore Eyes*, *swell'd Lips*, *Glands about the Neck*, or *under the Chin*, or the Parents have been subject to the same *Dis-temper*,

temper, and entail'd it thus upon their Issue. But if its Rise were first of all from some Strain or Bruise, the greater Caution is requir'd in forming a right Judgment.

If *Matter* be already made, and that you are engaged in the Work, having secur'd your Reputation by the *Prognostic* as aforesaid: The same must be let out, when finding, as it often happens in such Cases, the Joint foul, or the *Apo-physes* of the Bones *carious*, you are to proceed, as in such *Ulcers* and *Fistulas* shall be hereafter observed, and as you may collect from a Case or two presently to be annexed; the like in the *carious Ulcers* of the *Fingers* and *Toes*, *Carpus*, and *Metacarpus*, *Tarsus*, and *Metatarsus*, *Exostosis*, and *Spina ventosa*.

A little Miss about ten Years of Age, the only Child of a Linen-Draper in *Cornhill*, having, Hist. xiii. for some Time past, been troubled with the *Labrisulcium* or swell'd Lip, quickly after had the same *strumous Disorder* seized on the upper Joint of the Thumb, or that next adjoining to the *Metacarp*. The Joint grew thick and large, beginning to stiffen in its Motion, with the Extremity of the Thumb pining and growing smaller by the Nourishment intercepted, as usual in the *strumous Affects* of these Parts; at least appearing so, from the Disproportion to the Part tumefied so near adjoining, there seemed Matter to be gathering, tho' as yet deep.

Upon Sight of this *Tumour*, and a View of the Lip, I gave them to understand, that the Disorder was what we call the *Evil*, and that they must expect a foul Bone underneath the Swelling, so soon as it might happen to break, which it now seemed to threaten; having changed its

natural Colour, to a somewhat red and inflam'd Complexion.

However not being over-hasty to engage in the Work, I left them to take other Advice, not caring to lay on any Application, till they had so done: But hearing nothing from them till some Weeks after, I understood the Matter had made its Way through; when I was again consulted, together with Mr. *Bernard*, and Dr. *Edward Tyson* deceased; upon searching, we found the Ligaments all loose, and the two Extremities of the Thumb and *metacarpal* Bones *cariated* or rotten: Upon which we all concluded, that it would be a Work of long Time at the best, and the Issue then uncertain; that the *Chyrurgic* Intentions were to lay the Bones in View, and prevent the spreading of the *Caries*, whilst the *Physical* was level'd at the Disorder of the Blood supplying Nourishment to the Disease, to mend the *cachectic* Habit of her Body, more and more approaching, and secure her from a *Phthisis*, which seem'd to threaten from the same.

Accordingly, with a Sponge-Tent, there was Way made to the Bottom, which together with the *Præcipit. rub.* to keep under the luxuriant Flesh, after several Month's Attendance, disposed the *carious* Bones to separate from their Ligaments, where in some Places they were pinch'd to Pieces, whilst the *Internode* of the Thumb was rais'd in its whole Substance; which having now no Support or Connexion with the *metacarpal* Bone, hung only by its musculous Flesh, and was perfectly useless; wherefore I was desirous to have the same separated, by no Means expecting in such a poor diseased State, as we had to do with, any *Callus* to intervene, at least

least so as to supply the Place ; but the Parents opposing, it was left on.

Her physical Course consisted chiefly of a *Decoct. Sarsap.* with *Aq. Calcis*, giving *Calomel* over Night, and an Infusion of *Rhubarb* in the Morning, which were repeated as her Strength allow'd.

When at length through Want of Exercise, by Reason of a *Hemiplegia* also befalling her, she fell into a *Chlorosis*; the Physician was again consulted, by whose Advice, a gentle *chalybeate* Course was now prosecuted, with a bitter *Stomachic Tincture*: But then growing *Hectical*, with a Cough and difficult Breathing, *Pectorals* were prescribed, with other *traumatic* or *vulnerary* Decoctions.

Yet notwithstanding all Endeavours, either by *Physic* or *Surgery*, and many repeated Consultations with other Gentlemen of both the Professions, we still lost Ground; the Habit of her Body now growing *Oedematous*, especially her Feet and Legs, with the Arm of the Side affected; for which Reason I was very desirous of a Dismission, from so unsuccessful a Work as this was like to prove; acquainting them for that End, that I could do little more than keep the Ulcer clean; the *Caries* being still likely to spread farther over the Bones of the *Metacarpus*, as it did some Time after, bursting out in several *Abcesses* which wanted to be laid open; some in the Palm, others in the back Part of the Hand; and what was farther discouraging, such was the hard Lot of this once promising young Lady, that a new and *white Swelling* arose upon the Cubit at the Year's End, which at length inflaming, seem'd quickly after to threaten *Aposte-*

mation, having already lock'd up the Joynt, and rendred the same immoveable.

Under all these Discouragements, being still importuned, to assist the poor Child the best I could; when I had got the rotten Bones in Sight, and the Ulcers in good Order, as to any *fungous* Flesh, I gave Instructions to a Maid-Servant hired for that Purpose, and who had seen the Method for some Months past, under the Eye of the old Lady, how to supply my Place: So that I visited them only twice a Week, and some Times, when out of Town, but once; till the Swelling being fit for opening upon the Elbow, I applied a *Caustic*, and discharged about a Quarter of a Pint of a wheyish dreggy Matter; which being let out on the Outside of the Joint, where the Tumour was most prominent, and introducing my Probe through the Perforation made in the *Eschar*, I found a rotten Bottom here also, the *Process* of the *Ulna* called *Olecranon*, lying bare; which having dilated, after Separation of the *Eschar*, so far as was necessary to apply my Dressings to the Bone, and removed the rotten Superstructure, I slackned my Attendance as before, coming only to visit them once a Week: In which Interval, a bold confident *Pretender* to the Cure particularly of this Distemper, got Admittance to the Mother, which, I understood, he had for some Time before attempted, and under a *Cloak*, I should say rather the *Gown* and *Cassock* of Religion, promis'd such extraordinary Matters, setting forth a Narrative of the like miserable Circumstances himself had in his Youth been under, and his Recovery by the most *inoffensive Medicines*, without any cutting, burning, *Caustic*, or other painful and terrifying Methods of
Chy-

Chyrurgery, and their severe Usage of their Patients: That listening at Length to this *seeming Saint*, [tho' one of the vilest Men upon Earth] my Patient was brought forth, where the Maid taking off the Dressings, he seem'd to pish at the Disease, declaring he had been ten Times worse himself, having lost both Fingers and Toes thereby, and assured them under *God*, [tho' he knew he was then about the Devil's Work] that in twelve Month's Time, he would restore her to perfect Health, so vanquishing the Seeds of the Distemper, that she should be out of Danger ever after from any Relapse.

Upon which the Child's Father came to me, to let me know, that as I had long since shewn a Readiness to quit this unhappy Work, he was now come to give me a Discharge, with his Thanks, for what [according to my best Endeavours, together with the Gentlemen's Assistance he had consulted along with me] I had done for his Child's Relief: For which he paid me fourscore Guineas, telling me candidly at the same Time, what had past betwixt his Spouse and this *wicked Priest*; when knowing the Drift of these Sort of Undertakers, I caution'd him not to be too liberal in paying any Sum in Hand, assuring him I would return him what he then paid me, if that *vile Pretender* made good his Promise. He said, he ask'd for no Money, till the Cure was perform'd, which I thought very strange, those People usually securing all they expect before they begin, well knowing they are likely to merit nothing more: But this *Empiric* finding, he could not gain his Point the common Way was forced to contrive another *Bait* to catch them, which was this.

L. 3 When

When he had dress'd the Child about a Month, with a superficial Plaister, neither regarding *foul Bones*, nor *fungous Flesh*, with which the Ulcers were quickly overspread, thus easily without the usual Complaints, depending chiefly, as he said, upon his Wonder-working *Diet-Drink*, he told the Lady, that the same was very chargeable, and that being poor, he desired she would let him have five Guineas to lay out at Market; and thus once in a Fortnight or three Weeks, he accosted the credulous old Lady with such an Air of Religion and strict Piety, that he this Way bubbled them out of many Pounds; when at about three Quarters of a Year's End, at least two or three Months short of the promis'd Recovery, the Distemper still getting Ground, and the *Caries* spreading, the Child daily pining, fell into a *Marasmus*, and died in the Night following that very Day this bold *Pretender* had given them still Encouragement to hope Success.

Spina ver-
rosa & ex-
ostosis.

The last and most deplorable among the *strumous* Affects, which we recited at the Beginning, were the *Spina* and *Exostosis*, which we cannot stay to particularise, otherwise than may be collected from the following History.

HIST. xiv. A young Woman of a *strumous* Habit, having for several Years past been afflicted with a swell'd Leg, which growing still fuller and harder, and beginning also to be more painful, she was carried from one to another, who were at a Loss what to make of it: However Endeavours had been used by *Plaisters* and *Pultises*, some to dissolve, and others to bring it to *Suppuration*. At length an *Abscess* arising, the *Tumour* was open'd, but could by no Means be brought to heal up again: The Ulcer still spreading, till at length
the

the Bone was discover'd *carious*, and laid bare, for many Months, expecting a *Desquamation*: But being tir'd with *Surgery*, and very probably the Surgeons they had made Use of, at least some of them, tir'd with the Work; they contented themselves with prosecuting such Directions as had been given them by one of the last they had made Use of, who had told them truly, it was like to be a Work of Time, and in great Measure to be committed to *Nature*, still hoping for some lucky Turn by the coming down of her *Menses*, which had been long expected to no Purpose, she might gain the better of this obstinate Distemper.

But long Time now elapsed without these Visits, and the Ulcer still encreasing with *callous* Lips, they were advised to take my Opinion, who upon Examination perceived a *Sinus* running down from above, which was just beneath the *Articulation* of the *Tibia* with the *Femur*, on the Inside the Leg, the whole Length of my Probe, towards the inner Ankle: The Bone bare and rugged all the Way, from whence pressing upwards, a Matter like the Dregs of Oil discharged. The upper Part of the *Tibia* was spongy, like a Honey-Comb, and vastly dilated by its bony Cells, shooting forth like the *Hyperfarcosis* in the Flesh, altho' at the same Time it was hard and solid all the Way downwards, from two or three Inches below its upper *Apopbisis*, till within as many of the lower, where it seemed by its Bunching, to be of the same Contexture, porous and spongy, like the common *Exostosis*.

The Patient was much wasted, and in great Danger of Sinking, being spent and tired out with Pain: I would willingly have dismembered her,

her, as perceiving no other Way of ridding her from her Grievance ; yet the Operation was too hazardous for me to press it farther than they inclin'd, or should indeed seem to desire it : But this being oppos'd, and my self importuned by one of the Relations, my particular Friend, having made my *Prognostic* ; I began, I cannot say her *Cure*, but an Essay for her Relief, by laying on a *Caustic* below, in order to intercept the Matter, and give Discharge thereof by a more depending Vent for the same, as also that I might the better discover the Extent of the rotten Bone, and convey Remedies thereunto. The Lips of the upper Ulcer were sprinkled over with *Præcipit*, the Bone itself, with the *Pulvis Euphorbii* ; and so soon as the *Eschar* was cast off below, I made Way to the Bottom with the said *Præcipit*. and a Digestive on the Outside, strowing here likewise on the Bone, the said *desquamatory Powder*.

But finding this a very slow Way of Proceeding, altho' the Matter or rather medullary Substance was much better drain'd off than before, yet the true Nature and Extent of the *Caries* not being discover'd, I prevail'd for dilating the *Sinus*, and laying both Ulcers into one ; stuffing the Incision with hard, and dry Dossils of Lint, and binding the same on with as streight Deligation as she could admit.

The next Day taking out these Dossils, which had well distended the Wound, I discover'd the Inside of the *Tibia* with its Ridge upon the Shin, a great Part with my naked Eye, and the rest with my Probe, from a little below the Joint of the Knee to as little Space above the *Malleolus*, *cariated* or rotten ; then dressing, as before, with my dry Lint and Digestive externally, I rolled it up again, Having

Having got thus much of my Work in View, my next Concern was, how to waste the *callous* Lips of the old Ulcer at the Top, that had been of many Year's Continuance, and to get a Separation of the foul Bone; for I found my *Præcipitate* was as unable to waste the former, as the *Euphorbium*, or the strong Tincture thereof in Spirit of Wine, would avail in the latter.

She had from the Beginning pursued an *anti-strumatic* Course of the *Decoct. Sarsap. Filipendul. Succif. Scrophular. &c.* as laid down for the general Method, together with the *Millepedes*. She had also, as I understood, taken formerly great Quantity of the *Cineres Spong.* for some *strumous* Glands about the Neck, which disappear'd after. So soon as I had laid open the *Sinus*, I gave her *Calomel.* in small Doses between Whiles, rather as an *Alterative*, at least suffering it go off it self, than hastening the same away by Purges given for that Purpose, and this in Hopes to have disposed the stubborn Ulcer to a better Temper.

When I had thus spent about two Months to little Advantage, I contriv'd a *Canula* the whole Length of the *Cariosity* in Sight, with a Couple of Cauteries, of about half the Dimensions, into which I daily clapt them down by Turns, [first heating them] upon the said Bone, in order to dry up the Humidity; which tho' they smoak'd and hiss'd, gave little Uneasiness to our Patient, her Fears thereof lessening after two or three Days using. I would have past the same over the *callous* Lips, but she would not admit; wherefore shaping a Bit of Past, made out of the Crum of white Bread dip'd in Rose-Water, and mix'd with *corrosive Sublimate*, after the Manner of the *Troch. de Minio*, I placed the same all round the

Callus,

Callus, dressing otherwise, as formerly I had done; but before Night, I was alarm'd with the poor Girl's falling [through Extremity of Pain or the malign Quality of the *Sublimate* affecting the Nerves] into Convulsions, in which I found her between Whiles crying out of Pain, and complaining of great Sicknefs and Faintnefs at Heart, as she exprels'd her self.

I immediately unroll'd the Leg, and coming to take a View of the Part, found this poisonous *Escharotic* [which I never after upon such Occasions would make Use of] had eaten deep into the *callous* Lips, sticking fast therein, so that it was to little Purpose to attempt much Relief by forcing the same off; the *caustic* Salts having so penetrated, that there was almost a Necessity for their spending themselves; wherefore encouraging the Patient, the Pain seeming a little to abate, upon coming to her self, that it would be for her Advantage, and effectually answer our Expectation; I embrocated all round with the *Ol. Lumbric.* putting on a Digestive, dip'd in warm *Liniment*, over the Outside; ordering a little Morsel of *Theriaca* in a Glas of Canary, as an *Alexipharmic*.

The next Day I visited early in the Morning, and found her Pain much lessen'd, her Convulsions no more returning, tho' she continued still restless, with great Thirst, a feverish Pulse, and sick Fits sometimes returning: Also light *Rigours*, tho' much seldomer than they had been in the Night, intercurring. I found the Crust sticking fast, but after the second Dressing with the warm Digestive, the *Escharotic* came off, bringing along with it a vast *Slough*, and leaving the Ulcer more florid and susceptible of the *Præcipitate*: So that keeping the same strowed there-

with, and the Digestive over, I could not see but that all Things might go well enough in that respect, could we but find the rotten Bone to move: In Order to which we continued the daily Use of the *Cautery* on the same, and altho' upon Examination I discover'd it was farther tainted at each End, yet having no Matter pent in, and so large a Portion thereof in Sight, I could not see any absolute Necessity of farther enlarging, at least till we had Encouragement by its Stirring, to proceed farther in Order to lift it out.

When I had thus spent about a Year, keeping the Ulcer clean, and the Bone as dry as possible, strowing on either the *Præcipitate*, or *Calx viva*, where the Flesh happen'd to be luxuriant, I began now to perceive it shake from the Top to the Bottom, seemingly the whole Length of the *Tibia*, and the greatest Part of its Substance, at which, I must confess, I was somewhat startled, as expecting small Likelyhood that *Nature* in such a Habit would ever supply such Defect, as this must occasion.

For my farther Satisfaction, I passed in a *Terebellum* quite through to the inward Cavity in several Places, whence issued out the same oily Substance, as I had observ'd flow from the Worm-like Holes, interspersed in other Parts thereof, and this I did with little or no Pain to the Patient.

Once a Week after this Manner, I usually enter'd this Instrument sometimes into the old Places, but oftner making fresh ones, till I had bored a great Number of them, still shaking the Bone thereby from Side to Side, yet nevertheless I perceived it stuck too fast to be extracted: So that after a Year and an half's Attendance, partly

partly through the continued Discharge, and partly through the inveterate and malign Quality of the Disease it self, she grew *tabid*, and an obstinate *Diarrhœa* coming on, which opposed all Endeavours to restrain, obtain'd a *Quietus*.

The Day after her Decease, I open'd her Leg from the Knee to the Ankle, and found the *Tibia* about half Way through separated, from an Inch below its upper Extreme to about the same Space from the Ankle, entangled or detained by some bony *Striæ* at each End, forming the protuberating Part, or *Exostosis*, and shut in farther by the Muscles.

This doubtless was a true *Spina ventosa*, beginning in the medullary Juice it self, and by its corrosive malign Nature, corrupting the very Bones it should nourish; a Disease, of which the *Greeks* and *Arabians* have taken but little Notice, altho' it was doubtless known to both; to the former, by the Name *Τενδών*, from a small Worm eating into Wood; also *Pedarthrocace*, *ex wāis Puer* *ἄρθρον Articulus*, *Ἐπὶ πᾶσι, Malum*; from its being an evil Incident to the Joints of Children. Under this last Name, *Severinus* has written a whole Book; the *Arabians* gave it the Name of *Ventositas Spinæ*, and under this *Josephus Pandalphinus* hath publish'd another, which he calls *Traſtatus de Ventositatis Spinæ ſe-viſſimo Morbo*; this hath been since enlarged a *D^o Georgio Abrahamo Mertino, Medico Noriber-genſi*, printed in the same Place, *Anno, M. DC. LXXIV.*

One of the most remarkable of these Cases I have met with, was a Bone shew'd me by Mr. *Charles Bernard*, where the Top of the *Tibia*, to several Inches downwards, was so enlarged by

an *Exostosis*, or fungous Extuberance, [for I cannot see any Impropriety of calling this Enlargement, a *bony Fungus*] that it was as much as I could grasp with my Hands.

From what we have said of this Disease in general, another of your *Opprobria*, we shall find the Cure tedious at the best, as well as troublesome, and also hazardous in the Event; requiring the strictest *Regimen* and Patience in the Sick, as well as Art and Assiduity in the Undertaker thereof, who after all, in some of the *Species*, when he has taken much Pains, will sometimes find the same have been to little Purpose: Wherefore, 'tis less Wonder, that some of you Gentlemen, who are most able, having more than enough of other Business upon your Hands, are so very willing to get rid of this; and that for this Reason, the *strumous* Patient becomes so easy a Prey to those vile *Quacks*, who get large Sums of Money, some of them, of these credulous deluded People paid before Hand, with fair Promises of a Cure they understand as little of, as the Patients they impose on. *Sed dulcis Odor Lucri, exre qualibet*, is, at least ought to be, the *Motto* of these knavish *Medicasters*, with which we leave them.

'Tis true enough, that *Time*, with some lucky Change of *Temperament* sometimes brought about thereby, has wrought wonderful Alterations in this as well as other Diseases; when happy is the last Medicine administred, and the last Person employ'd at such a critical Turn or Juncture.

It was this Reflection certainly, that gave Rise to that *Sarcastic* upon *Physic*, *Natura curat Acutos, Tempusque Chronicos*: Which, under a limited Sense may be allow'd, without Invective upon that

that Art, which if at the same Time wholly neglected, 'tis most certain, that the one will be found as little able to help herself, as the other to work a Cure abstracted from the said Art. But albeit 'tis the Misfortune of some, to miss theirs, after much Pain and great Expence, yet has it been formerly the good Hap of others to obtain one in this particular Distemper, with as little of either, I mean by the *Royal Touch*: Upon which Subject, because I know the same is ridicul'd by most, I beg the Favour of saying only this.

*Cure by the
King's
Touch con-
sider'd and
asserted.*

That as it argues great Imbecillity of Understanding to be *overcredulous*, so to be *incredulous*, or *sceptical*, when we have the Evidence of Facts, is surely, on the other Hand, very *disingenuous*; whether the Cures of this Kind, are brought to pass *by the Power of Imagination*, which is capable of performing many Things almost incredible, as I have instanced in another Place; by the Prayers of the *Priest*, the *immediate Interposition of divine Energy accompanying the same*; or that of the *Princely Touch*; or finally to the *Efficacy of the Touch alone*, is not for me to determine; nor can I, who pretend only to make good the Assertion, that such Cures have been wrought, which I find incontestably done to my Hands, by Mr. *Serjeant Wiseman*, a Person, I must needs think, well deserving of this Company, for his Industry in compiling his *Chyrurgic Treatises*: In one of which, discoursing of this Malady, he hath affirmed, that in his Attendance upon the *public Healings*, he had been an *Eye-Witness* [*and how, I beseech you, can we have clearer or more convincing Evidence*] of many hundreds of Cures perform'd by his then *Majesty's Touch*, without any Assistance from *Chyrurgery*: Nay, he does
not

not scruple to affirm, that the said *Touch* had cured more in *one Year*, than all the Surgeons in *London* had done in *an Age*.

It may be I know objected, that among a Hundred Thousand, and a greater Number of Persons, who have been touched, even since the Restoration of King *Charles II.* it would be very strange, if diverse of them should not afterwards recover, which they might otherwise have done.

I answer, that if any of those have been attended with such Circumstances, that the Alteration cannot fairly be imputed to any other Cause, it makes sufficiently for our Position; but instead of one, we have many hundreds, where the Evidence is undeniable.

Mr. *Serjeant Bernard*, whose Name, doubtless, will be had also in great Esteem among the learned Members of your Society; how great a Jest foever he might sometimes make among his intimate Friends about these Cures, has notwithstanding seriously affirmed to me himself, in Talk upon this Subject, that he had known many *strumous Glands*, which had stood out against the most powerful *Discutients* and *Emollients*, and that too under the strictest physical *Regimen* for many Months, nay Years, that had immediately disappear'd, after the late *Queen's Touch*; when both *Physic* and *Chyrurgery* had been thrown aside. And I can assure you, upon my own Know-Hist. XV.ledge, that having got a Ticket of him for a poor Fellow in my Neighbourhood, almost blind with a *strumous Ophthalmy*, complicate with large Glands on the *Mastoidei*, which had defied the best of my Endeavours for his Relief, was, in a few Days after the *Queen's Touch* at a public Healing, as well as ever in his Life, altho' the Glands had been of several Years standing, and
the

the Inflammation on the Eye, betwixt Whiles, of near the same Continuance.

And thus much I have adventur'd to say upon this *Topic*, even after Perusal of a late *Pamphlet* * purposely set forth to depretiate these Cures, and to represent the *Princes* practising thereof, as no other than the *Tools* of *Parasitical Courtiers*, *knavish Priests*, and others, whose Interest it was to carry on the Delusion.

But really begging the Author's Pardon, notwithstanding F. R. S. at the Front of the Performance, I cannot find his *Conclusions* sufficient to make good his *Premisses*; and least of all in that Deduction, *our hearing less of the Disease, and fewer dying thereof*, [as he tells us, he has collected from the Bills of Mortality] *since the said Practice was laid aside*; as to which his Opponents may perhaps think it as sound Reasoning, to draw the Inference thus, *viz.*

That the poor *strumous* Patient being now denied the Blessing of the $\alpha\pi\iota\varsigma\ \iota\epsilon\rho\acute{\alpha}$, or *Charisma Basilicon*, Providence may likely have so ordered, that the Disease should less prevail among us; or that such Succour now denied, and the Artist shy of engaging in the toilsome Work, he rests content, without applying any where, till *Nature* at long Run, works his Deliverance; or that he is kill'd by some *Quack* obscurely, or in a Corner.

But for my own Part, I can more easily account for this, in that the *Touching* [for we must, it seems, no longer call it *healing*] being laid aside, the vast Concourse of the Diseased of that Kind from all Parts of the Kingdom ceasing, no Wonder fewer Objects should present.

* See a free and impartial Enquiry into the Antiquity and Efficacy of touching for the Cure of the *King's Evil*.

The Liberty our Enquirer has taken with the Characters, not only of Dr. *Allen*, Mr. *Clowes*, and Mr. *Wiseman*, but Dr. *Heylin*, Dr. *Tooker*, and many other *Divines* of the strictest Probity and Piety, officiating at these Times, as Men prostituting their Consciences for By-Ends, and sinister Advantages, is, methinks, unbecoming a Gentleman, and an F. R. S. I would rather hope, if there was nothing but Ceremony in the whole Affair, and no one better'd thereby, as there have been many thousands; themselves might be imposed on, through their Zeal to help the afflicted, than designing either to impose upon their Prince or their Fellow Subjects, as this Author's Drift is to persuade us. But I cannot think, our Princes, *some of them*, so easy to have been imposed on; nor indeed that, abstracting from divine Right of Succession, [which I shall not meddle with] or Benediction either upon the Undertaking, if the Cure is wrought merely by the Force of *Imagination*, having nothing therein *magical*, nor I am sure, *impious*: I see not, I must confess, any Harm that could, but possibly much Good might, have attended its Continuance: And I can do no less than suspect, and shrewdly, as they say too, if those in the *touching* Reigns were to serve a Turn in promoting it; our Author has his Views also in taking all this Trouble upon himself, of bespattering so many worthy Men, endeavouring to evince, that *as it will be a Proof of the Over-credulity of some of our Kings*, to use his own Words, *so will it redound to the Honour of others, who suspecting the Authority of prejudiced Persons*, [I suppose he means rather interested, and relying on the *αὐτὸς ἐπὶ* of Mr. B——] *have altogether declin'd the Exercise of it.*

Yet after all, I do not find this Gentleman so much displeased at *touching* in general, but only with our Kings and Queens; for he owns, Mr. *Greatracks* to have cured a *prodigious* Number of Persons, even of this Distemper; and some, where King *Charles II.* had failed; but this Man, he informs us, was one of great Honesty and exemplary Sobriety, taking no Gratuity for his Performances: And what are we to infer hence? Unless the *Quandoquidem*, our *touching Kings and Queens were*, &c. and the *Ergo*, that they have cured no Body, only imposed on their People. But I forget: Being unable to gain-say the many undisputable Recoveries brought to pass hereby, we are run upon this *Dilemma*, that the King's Cures were wrought by the *Royal Majesty* impressing the Patient's *Imagination*; and those of Mr. *Greatrack's*, by his Sobriety and great Honesty.

To sum up the whole in our Author's Words; *happy is it for us now, that our Minds are free from those Incumbrances, an unrestrain'd Freedom of Thought, and a right Method of Reasoning, are become the happy Characters of this Age; and as we have learn'd not to suffer our Senses to be imposed upon, so we likewise have, to reduce every Thing to the Standard of Truth.*

From whence we are given to understand, that this great Discovery of the Folly and Insignificance of the *Royal Touch*, to call it by no harsher Names, is owing to the present Indulgence of *Free-Thinking*, above what we enjoy'd in former Times; which we need not surely envy any, that were therewith content: But when this *Free-Thinking* has been accompanied with *Free-Speaking*, and *Free-Acting* also, consequent thereto; I fear we have been no great Gainers by the Indulgence;

dulgence; since it is plain to any one, who takes a View of the Fruits thereof, that we have not only *thought* but *talk'd* away our *common Christianity*, as well as *Morality*; and I think we may give Instances of our having *acted* more inhumanly, than any of our Ancestors, when *Free-Thinking* was less in Fashion.

'Tis Time I should now ask your Excuse, as well as that of the Authors of the *free Enquiry*, to which surely, I may lay Claim upon his own Principles, I mean of delivering my Sentiments freely one Way, as he has disclosed his another.

Pardon then, Gentlemen, this Excursion, and I will quit the Subject with this farther short Remark, that as according to our great Master *Hippocrates*, there is a $\delta\epsilon\omicron\nu\ \tau\iota$, or *divinum quid*, in the Nature of some Diseases; there may be the same also, for what we know to the contrary, in the Removal of others.





S E C T. III.



Of encysted TUMOURS:

*Also of the fleshy, watery and windy
Tumour, with an Account of Rup-
tures, both Genuine and Spurious.*

*Difference
between
Struma
and Scro-
phula.*



IN our last Section, making Mention of the *Struma*, we have sometime used the Word *Scrophula*, indifferently therewith, as have others before us: But Dr. *Wharton* [upon whose Authority I cannot say] will have them distinguish'd thus †.

*Likewise of
the Athe-
roma,
Steatoma.
and Meli-
ceris, with
their
Causes,
Signs, and
Cure.*

The Struma, saith he, is a Tumour sometimes less and sometimes bigger, shifting its Residence from one Place to another; whilst the Scrophula is more permanent, and always increasing, to such Magnitude at some Times, that as he instanceth, there was one in the Hospital of thirty Pounds Weight.

† Vid. *Adenographia*.

Again, the Scrophula is softer, the Struma harder, the former more superficial, the latter deeper, and more compress'd, the former also is more sensible than the latter.

In a Word, having sum'd up these Distinctions, the *Strumæ*, continues he, are among our People called the King's Evil, the Scrophulæ being termed Wens; from whence it has been infer'd, that he would have the encysted Tumours go also under the Name of Scrophulæ, whilst the other before described, take that of *Strumæ*.

But leaving this Distinction of the Doctor's, there is yet I think a more essential Difference, in that the one is truly glandulous, the other partly humoural, and partly fleshy.

Farther, the encysted Tumour is with less Difficulty brought to Suppuration, after which the sloughy Cystis being digested out, together with the Contents, the Ulcer heals with less Trouble; whilst the Struma very difficultly turns to Matter, and creates more Trouble throughly to extirpate and get whole again. They are both indeed very sluggish Tumours, wherefore we have reckon'd them among the cold and chronical; and whatever Affinity or Disagreement there may lye between them, 'tis certain, the one is more pliable or tractable than the other, and frequently met with in those Bodies, where there is not the least Appearance of a strumous Disorder in the Blood.

I remember to have removed four from the *Scalp* of an old Gentle-woman, dividing the Skin of one of them by a single Incision, and slipping it out whole, whilst I cut into three others at the same Time, and having digested out the Bags, containing their crude Matter, freed her from her Trouble in about three Week's Time

Hist. xvi.

by the common *Chyrurgery*; these last were all *Meliceris*, and ready to burst; the other *steatomatous*, or of more solid Consistence. She had a fifth on her Shoulder as large as a Turkey-Egg, out of which, the Skin having been some Time before broke on the Out-side, I dilated the same, and took at Times some Ounces of a suety or fat Matter, when filling up the Bottom of the Cavity with the *Præcip. rub.* with Dossils dip'd in warm *Liniment*, and a little *Ol. Tereb.* over that also a large Pledgit of *Digestive* on the external Part, I left the same in for two Days; and thus after the fourth Dressing, the *Cystis* came away in a large *Slough*, the Ulcer soon after *incarning* by the same Means, lessening only the *Præcipitate*, as the Ulcer deterged, and cicatrising with dry Lint, and my *Cerate of Lapis Calaminaris*; whereas a *Struma* of this Bigness, and this Way attempted, would have been very probably the Work of as many Months, as this was Days; if not at last, left incompleat. This Kind of Tumour here seated, is by the old Writers called *Talpa*, from the Mole, or rather the little Hills that Creature raiseth above the Surface of the rest of the Ground; in like Sort these Tumours appearing scatter'd up and down under the Skin and Hair of the Head, when they are smaller, as about the Bigness of a little Bean, they are called *Lupia*; the first are usually reckon'd to the *Atheromatous*, the last to the *Meliceris* Kind, tho' others number it with the *Ganglion*.

We did in the foregoing Section divide these *encysted Tumours* into three Sorts, explaining their Original, viz. *Atheroma*, *Steatoma* and *Meliceris*, whose Greek Nomenclature shall be given hereafter.

The

The first, we define with other Writers, a Tumour præternaturally seated on diverse Parts of the Body, very commonly the Head, Neck, Shoulders, and Arms; contain'd in its proper Capsula, of the same Colour with the Skin, neither easily giving Way to Pressure, nor returning easily after the Finger is removed, containing in it Matter like unto Pultis, or hard Curd.

The second, a Tumour likewise inclosed, not varying its Colour from the Parts adjoining, arising from a small Beginning as the other, and gradually encreasing; it more difficultly gives Way upon Pressure, but sooner returns to its former State; there is found therein a Matter like unto Fat.

The third, is like the other two, contain'd in a Cystis or Bag, of a more round and equal Figure usually than the rest: it easily recedes or gives Way, and as quickly returns to its pristine Figure, having a Matter in it like Honey, or the thick Dregs of Beer.

You must note, that all three have this in common, to be attended with little Pain, unless seated upon some more sensible Part, where by the Tention of the Skin, they prove troublesome, or lying in the Way of the Comb, as upon the Scalp, or in that of the Cloaths, they happen to be compress'd, and grow uneasy; or if fix'd upon some membranous or nervous Parts, they impede the free Motion thereof; or lastly beginning to inflame, from some hot and suppurative Applications, have some Parts of them turned into Matter; I say some, it being rare to find a kindly Maturation, like that of the inflammatory, by Reason of the cold, viscous and less digestible Contents, of which they are made up.

For as to their Causes, the antient Writers derive them from *Phlegm* and *Melancholy*, in a degenerate State; but we, from the *nutritious Juices*, ouſing out of ſome *excretory Duſt*, at the Sides or Extremities of the Veſſels, where being ſpilt, and having more of the ſame Juice drilling through, provident *Nature* ſoon envelops it for its Security, in like Manner, as the Liquors of the *Ovum*, with its *Pellicle*; where according to its Proneneſs to coagulate ſooner, or later, it is by the Warmth of the Place where it reſides, thickned into a *melleaginous*, or *mucilaginous* Kind of Liquor; or by a greater Heat and a natural Fitneſs for the ſame, baked into a *Pultis*-like, or ſuety Conſiſtence.

Nor let it ſeem ſtrange, that this Kind of *Tumour* ſhould ſome Times enlarge it ſelf to an extraordinary Magnitude; for being enclosed by an impervious inveſting Membrane, which grows up with them, and having no *excretory Duſtus*, it muſt needs follow, that by continual Supply of more ſtill of the ſame Liquor entring in, they will ampliate their Dimensions.

The Gentleman, we ſo lately quoted will have them to be certain excrementitious Particles of the Blood, laid aſide as uſeleſs, in the Nutrition of the glandulous Parts; his Words are theſe in the ſame Treatiſe, p. 254.

‘ Credibile eſt, hoſce Succos concretos excrementa quædam eſſe, rejecta a Carne glandulosâ in ejus nutritione. Carent enim hæ glandulæ vaſis cujuſvis generis excretoriis, & propterea neceſſe habent, excrementa ſua in Cyſtas in ſubſtantiâ earum efformatas congerere : Quæ una ratio eſt, cur in tantam molem excrescant : Altera eſſe poteſt, quòd earum venæ im-

pro.

proportionatæ videantur earundem Arteriis:
 Hinc enim Sanguis per Arterias effusus, copio-
 fior est, quàm is, qui per Venas reducitur;
 unde necessariò fit, ut eadem indies augeatur;
 accedit, quòd Nervus harum Glandularum per-
 quam exiguus est, uti ex sensu earum obtuso
 videre licet. Si enim illos [cutaneis partibus
 priùs dissectis] aculeis pungas, dolorem vix
 percipiunt; cum ergo exiles adeo Nervos ha-
 beant, certum est, incrementum ab Arteriis po-
 tissimum accedere, Nervosque superfluæ mate-
 riæ vel auferendæ, vel in alias Sedes transferen-
 dæ, impares esse.

From what has been already discoursed upon
 these Tumours, it is plain, that they will ad-
 mit, generally speaking, a much better *Prog-
 nostic* than the *Strumæ*; being neither so stub-
 born in their Nature, nor their Contents so dif-
 ficultly digested and deterged: Yet neverthe-
 less, without removing them entirely, together
 with their Case which incloses them, they will
 be apt to appear again, or prove *sinuous* Ulcers.
 When they are fed by some large Blood-vessel,
 or lye close adjoining to any *Membrane*, *Tendon*,
 or *nervous* Parts, they occasion consequently the
 greater Trouble, and exact our greater Dili-
 gence and Care, than when loose and disengaged,
 or pliable and safely situate for Removal, which
 is done as you have heard, either by taking them
 out whole; or where the same is less practicable,
 to open them either by *Cautic*, or *Incision*; and
 having digested and deterged them together with
 their *Cystulæ*, to incarn, as in other Ulcers, where
 there is Loss of Substance, and bring on a *Ci-
 catrix*.

Having said I think enough of the Nature and
 Manner of Production of these Tumours, toge-
 ther

ther with the *Prognostic*, we shall touch upon their Cure, which, as we just now intimated, is accomplished with less Difficulty than the *strumous*, nor want they so strict a *physical* Discipline, many of them having been effected without a Grain of internal Medicine, or standing in need thereof; tho' they all require the same Method of Extirpation, unless that the *Meliceris* is more liable to burst, and cannot so readily be turned out whole. But it then makes this Amends, that the Contents being thinner, are sooner discharged, when the *Cystis* only remains to be digested out, the Ulcer after healing with little Difficulty; which brings me directly to add a few Words concerning the two different Methods of Proceeding with them, *Excision* and *Suppuration*, unless when very small, or in the Beginning, they are so kind as to give Way and discuss, under some of the *gummy* Applications, such as *Empl. ex Ammon. Diach. cum Gum.* and the like.

The Way by *Excision* is doubtless the more expeditious, and may be safely enterprised, where safely situate; I mean free of the *Arteries* and *Tendons*. The Method being alike with that observed in extirpating the *Strumæ*, but greater Caution is sometimes requir'd, that the *Capsula* be not divided, or the proper Bag containing their Humours, together with the other Teguments, lest there happen Difficulty after inturning the same out whole with the Contents.

The Way by *Suppuration* is more tedious, for the Reasons formerly alledged; however when by some powerful emollient *Cataplasm*, such as we have proposed for the *Bubo*, or a Plaister of the *Gums* and *Mucilages*, you have digested what you can, and the Matter seemeth ready to break through,

through, you may lay on one of your stronger *Caustics*, such as the *Lapis infernalis*, which will be able to penetrate the investing Membranes, together with that of the *Cystis* it self; after which, and the *Eschar* separated, as was shewn in the *Pblegmon*, the Cavity of the Ulcer must be filled up with your *Digestive* and *Detersive*, among which none exceeds the *Præcipit. rub.* to answer these Intentions; where the Ulcer is very *sordid*, some use the *Unguent. Apostolorum*, others, the *Ægyptiacum*; others again the *Fuscum Wurtzii*. But I think the *Basilicon flavum* well loaded with the said *Præcipitate*, or this latter sprinkled thick, [as I have above directed] upon the indigested Remains will hasten Separation of the same together with the *Cystis*, as well as any of them, if not much better. After which your chief Care will be to provide a good Foundation for your Superstructure, which is effected by the common *Sarcotics*, as in other hollow Ulcers will be directed hereafter.

But where the Tumour is very large, as in some of the wenny Kind falls out, that are incapable of Excision, you will find after casting off the *Eschar*, a Necessity very frequently of cutting up the whole Body of the *Tumour*, in Order to cleanse away the Trash therein contain'd, and destroying their *Cystos*; in some of which you will find a Kind of *Curd*, in others a *Gypsum*-like Substance, in others somewhat *analogous* to *Sand*, *Hair*, and such like *Trash*, as we meet with in the apostemated Cells of the female *Testicle* or *Ovarium*.

But observe, that in these Dilatations, as in all others, you carefully observe the Tract of the *Fibres* as much as possible, keeping clear of the *Arteries* and *Tendons*, and securing all you can, a good
Use

Use of the Part, when you have repair'd the Breach.

There is yet another Way of removing these *Tumours*, and that is by *Ligature*, taking Place only where the *Basis* is small, at least not too big for the same, but hanging, as it were, by a *Peduncle*, or Stalk, which being streightned, and the vital Heat and Spirits thereby intercepted, the Part on this Side the *Ligature* first grows livid, after mortifying entirely, separates of it self, or is removed by the Knife, without Sense of Pain, or Effusion of Blood.

In proceeding this Way, unless the Stalk be very small, and the *Ligature* may be safely and sufficiently so streightned, as to perform the Work at once, you are to make a Slip-knot, by which for the greater Safety and Conveniency, you may gradually constringe, as your Patient can suffer it; and tho' you are somewhat longer in performing the Task, yet will the same be easier to him, and many dangerous Symptoms of Fever, Convulsion, &c. be avoided, which might otherwise intervene by the too strict and hasty Compression thereof.

When the *Ligature* is fallen, or fit to be cut off, the Part constringed being thereby perished, from its Nourishment now stop'd, growing livid, or black, and shrivel'd, you may dry up what remains after such Extirpation, with some desiccative Application, as we have shewn in our Treatise de *Morbis cutaneis*, where we handle this Manner of taking away certain pendulous *Sarcomata*, with other *Excreescences* preternaturally sprouting thence.

HIST. xvii. I had once a poor *Shoe-maker* under my Care, of a cold *pituitous* Temper, who had the greatest Number of these crude congested *Tumours*, I ever met

met with in the same Subject, forwards from the *Clavicles* over the Shoulders to the lower Angles of the *Scapula* behind, no less than nine; some near adjoining to each other, some again at farther Distance; from the Size of Pigeon's Eggs, to that of a large Tennis-Ball; three of the largest were superficially suppurated, and had burst through the *Cystis*, their thick curded Matter appearing in View; being all of the *Atheromatous Kind*, and of many Years Growth; finding them safely situate, I undertook the poor Man's Cure, as follows.

Those where the Matter had broke through, I cut farther open by a crucial Incision, at the same Time snipping off the Angle of each Lip, for the more commodious coming at their *Sordes*, and hastning out the same, which I sprinkled thick with *Præcipit.* as above directed, and applying a Pledgit dip'd in the warm *Liniment of Arceus*, with equal Parts of *Basilicon*, and a little *Ol. Terebinth.* for its easier Penetration and quicker Digestion, suffering the same to lye on two Days; and thus each Dressing brought off thick *Sloughs* of the viscous Matter, loosening the rest, so that at several Dressings, besides what came thus away, I lifted out with the Point of my *Spathula* several Ounces, till by Degrees in this Manner having cleared away the Rubbish, their *Cystes* likewise digested out, incarnated and cicatrised with the same Applications, and the Assistance of my Cerate.

Those which were yet whole, I opened in like Manner, avoiding the cutting into their inclosing Membranes; when lifting up the Lips of the Wound, I separated the same therefrom with my Knife; after clapping down my *Spathula* all round, I divided the adhering Fibres:

Yet in raising up the *Cystes* from the Bottom, notwithstanding my utmost Care, most of them broke, but removing the much greater Part at this single Dressing, the Residue was soon after digested out, and those Lips, which lay commodiously for the same, were, after a little Time, by Compress and good rolling united, whilst the rest, being like to grow troublesome, were taken off, and the Ulcers being mundified, were *incarned* and after *cicatrised*.

The Work was a little troublesome, and the parting of the adnascent Fibres painful, otherwise neither the Bags themselves, nor their Furniture, little or nothing sensible of the Knife or Applications, however warm and spirituous.

The Rise of these Tumours seemed to proceed from a crude and improper Diet, such as great Quantities of *Herbage*, *Pulse*, *Milk*, and *Cheese*, with Water for his Drink, being by a Charge too great for the poor Pittance of his Wages reduced to the utmost Penury; by which, and his continual sitting Posture, stooping forwards with his Strap over his Shoulders, these *pituitous* Humours might very likely be heaped up, and settling upon these Parts, grew at length so troublesome, as to render him in a Manner incapable of pursuing his Employment.

When I had thus freed him from his Complaint, I advised him, by Way of Prevention, to leave off drinking cold Water, instead whereof, I directed him to a *Guajac. Decoction*, which was easily purchased; as likewise a bitter Infusion with the *Tinct. sacra* between whiles, to invigorate and fortify the Concoctions, and mend the *pituitous* Condition of his Blood; and farther, that he should take all Opportunities of exercising himself, or to supply the same by rubbing of his
naked

naked Body with a coarse Hair-Cloath Night and Morning.

Before I leave this Part of my Discourse, I shall observe to you two other Tumours belonging to the same Class, I mean the *Ganglion*, and *Bronchocele*; the former seated usually on the *tendinous* Parts of the Hands and Feet, as also upon the *Internodes* or Joints of the *Knee* and *Elbow*: The latter always upon the *Bronchus*, or *Aspera Arteria*, whence the Name is taken a *Βέγγυλον* & *ἄλν*. *Ganglion and Bronchocele with their Causes, Signs, and Cure.*

The former, which is usually owing to some Wrench or Bruise of the tendinous Parts, is so manifestly a Disease thereof, that we need neither doubt of the Humour flowing from the distorted *Fibrillæ* of the same, nor of its Coat or *Capsula* being furnish'd from the investing Membrane thereof expanded in the Place, and enveloping the diffused Juice coagulating underneath.

Upon which Account, where the same admits not of Resolving, it proves usually very troublesome, in Regard of its Affinity with the *Tendon* underneath, and from which it can scarce safely be parted; or admit it should suppurate, it will prove troublesome to heal, and apt to fill again, unless its Enclosure also be digested away with its Contents, which is sometimes hazardous.

The Cure of the *Ganglion* has been diverse Ways attempted, as by some powerful resolutive or discutient Application, such as we have before laid down for the other *encysted Tumours*: Over this there will be required a strict Compression and suitable Bandage. For this Purpose, it has been customary to bind on a Piece of Lead, beat out exceeding thin, and to streighten the

the same as the Patient can bear it, with some Ribbon or other Ligature, the said Lead being first smear'd over with Quick-silver; others will have a Piece of Gold ordered in like Manner, and bound down upon the Part. *The Empl. de Ranis cum Mercurio* is directed by others, as also *de Cicuta cum Ammoniaco*, that with the *Empl. ex Ammoniaco* being what I have usually tried; also the Gum it self spread upon Leather, and bound on for some Time, insensibly disperseth, and scattereth these Tumours.

Jacobus Meekeren * proposes the laying of the Hand, where the Disease is there seated, prone or flat upon a smooth Table, and supposing the Ganglion on the Back thereof, he directs it to be there fast held by an Assistant, whilst the Artist himself, with his Fist striking forcibly upon the Tumour, breaks the *Cystis*, and diffuses the Humour, after which he treats it as a simple Contusion.

But this Experiment I shall not encourage, by Reason of the Accidents that may ensue upon this rustical Usage, especially in some ill habited Patients; besides the *Cystis* remaining, the Tumour may chance to fill again.

The last Remedy is Incision, when it will neither discuss nor suppurate, carefully dividing the Skin, and separating the adhering Fibres, to take out the whole; or if it breaks, digesting out that glairy Matter contain'd, together with the Membrane that inwraps it: But here you must be sure to avoid all unctuous or greasy Applications, instead of which the *Liniment of Arcæus*, with a little *Bals. Tereb.* as also the *Præ-*

* Observ. Medic. Chyr. Cap. 63.

cupitate, according as the Ulcer is more or less *sordid*, are most expedient.

A Shop-keeper in my Neighbourhood, sending for me upon another Occasion, took this Opportunity, turning down his Stocking, to show me his *Knee*, where just beneath the *Rotula*, there appear'd a *Ganglionide* Tumour, as large as a Turkey Egg, moveable every Way, and transparent in a Manner to the Candle on the opposite Side; upon the Flexion of the Joint it felt very tense, and was somewhat painful, going up or down the Stairs, and stepping *alternatim*, or interchangeably with his Feet. It had been filling leisurely for seven Years, and growing still bigger, and more troublesome, he was desirous [if I would have given Way] to have it open'd; but considering its Situation, and well foreseeing the Trouble I might meet with, which he had no Apprehension of, I advis'd first of all, as he had done nothing yet for its Removal, that we might attempt its Dissipation by some proper Discutient, together with a laced *Knee-Piece* well fitted, allowing a small Cavity to receive the Tumour therein, which was accordingly made, and worn for some Time over an *Emplaster ex Ammoniace*, incompassing the same, by which the whole Juncture was not only much strengthned, but renewing the Plaister once in ten Days, the *Tumour* gradually decreased, and after four Months Time entirely vanish'd out of Sight.

HIST.
xviii.

Another I knew of the like Kind, who, after an accidental Fall upon the Part, burst the *Cystis*; and tho' for some Time after confin'd by the Fluxion, got rid of the *Ganglion*, and by wearing a *Knee-piece*, with a defensative Emplaster

HIST. xix]

plaster some Time after, was secured from a Relapse.

These Tumours seem to take Rise from some extravasated *Lymph*, or from the *mucilaginous* Liquor of the *Internodes* diffused, and forming itself a *Capsula* from the Membranes thereof, gradually increases and thickens into a jellyish Consistence.

The Bron-
chocele.

The *Bronchocele* is a Tumour situate upon the investing Membrane of the *Wind-pipe*, or betwixt that and the Muscles of the said Part, where it sometimes takes so large a Compass, as to extend it self from one *Jugular* to the other; lying high and prominent, like a *Semisphere*, or half Globe, or at least of a *Sphæroide* Figure.

It takes its Rise commonly from loud Crying, Coughing and Vomiting; as also from a sudden Jerk or hasty Turn of the Neck, as I have been informed by some therewith affected.

It is called also *Hernia Bronchalis*; but if there be a Rupture in the Case, as that Name will imply, it is most likely to be that of some *lymphatic* Vessel, diffusing or shedding its Contents betwixt the Membranes of the *Aspera Arteria*, and the Muscles incumbent, where being leisurely accumulated, it distends the containing Parts, and from the broken Fibres thereof, makes it self a Cover, which grows along with it, in like Manner, as has been observed formerly of the other *capsulate* Tumours.

There are others, who derive its Origin from some nutritious Juice extravasate, and turning into a Flesh-like Substance, after the Manner of some other *Sarcomata*, to be described presently; and indeed both these may be right, since we often find the Body thereof made up

partly

partly of a *fluid*, and partly of a more firm and *glandulous* Substance: But to proceed to the *Prognostic* and Cure thereof.

The *Bronchocele*, by Reason of its unhappy Situation among the large *Blood-vessels*, the *recurrent Nerves* and *Wind-pipe* it self therein concerned, at least its investing Tunicle, affords a very hazardous and uncertain Issue; and if it admit not of *Discussion*, there is little Encouragement to meddle farther: For if it *suppurates*, there is left commonly a very *sordid* and *sinuous* Ulcer, which since you can't dilate so conveniently as in other Parts might be done, nor have any Advantage by Rolling, which the same will not allow, you may be put upon risking your Patient's Life, or leave him in a Condition worse than you found him, with an incurable gleeing *Fistula* or *Dyssepulotic* Ulcer: So that if any Thing be done in Order for the Cure, it ought always to be attempted first of all, by some proper *Discutient*, as was proposed for the *Ganglion*. For this Use also serves the *Empl. Antimoniale* of Dr. Fuller, to be met with in his *Pharmacopeia extemp.* but indeed these Tumours are most commonly left to themselves; the great Danger by Incision on account of their Situation, and the Difficulty of healing, when they come to *suppurate*, having very much discouraged their Undertaking: Wherefore the much greater Number now content themselves without any *Chyrurgery*, when apprised of their stubborn Nature, and the Uncertainty of Success.

'Tis much more rare to find these Tumours in the Necks of Men than Women, or at leastwise being less obvious to Sight, they pass unheeded, and we are not so often consulted about them. I am sure, to one that I have observed

in our Sex, I have met with half a Dosen on the Throats of Women.

HIST. XX. A Country Woman, after a violent Fit of Coughing, to discharge somewhat fallen down upon the *Larynx*, perceived instantly a Swelling on the Outside of the same, which gradually enlarging, after few Years, encompassed all the Forepart of her Neck, taking in both the *jugular Veins*.

Thus terrified by perceiving it still farther to encrease, she was advised by some of the superstitious Neighbours, to have it stroaked *nine Times*, [for less could not have done the Feat] by the Hand of a Person strangled under the *Gal-lows*; for which End she made a Journey of fifty Miles to *London*, and as Opportunity gave Leave, tried the Experiment; but finding no Benefit hereby, after her Return, a bold *Empiric* coming into those Parts of the Country, had promised he could empty the Swelling, by thrusting in of a *Thorn*, assuring her, there was nothing in it but Wind he would let out, which she gave Way to, and he thrust the same in on each Side, into the Body thereof.

But the *membranous* and *nervous* Parts being farther irritated hereby, and nothing but Blood or Serum deeply tinged therewith, discharg'd; a Fluxion arose upon the Outside, which soon after inflaming, was by some other Undertaker mistaken for a common *Abscess* or *Aposteme*, and accordingly opened, when meeting only with a fleshy Substance, after a great Quantity of Blood had run out, he attempted to waste the same by *Escharotics*, of what Kind I know not, but still attended with more Pain, large *Gleets* exhausted her Strength, and being brought hereby very low and weak; the Ulcer spreading,

spreading, she made a second Journey to *London*, and consulted me, as she had been advised.

I found a large Plaister on the Out-side, which by its glistering Particles, seemed to be the *crude Antimony* powder'd, and incorporated with some Plaister, then taking out many large Dossils and Pledgits, found an Ulcer, which might be truly named *κακόνθος*, crude, foetid, and putrid at the Bottom, with callous pouting Lips all round about.

Upon which, seeing little Prospect of serving her otherwise than by my Endeavours to palliate so enraged now, and stubborn a Malady, and she expecting a Cure, I declin'd meddling therewith, and made Way for one, to whom she applied afterwards, and who undertook it. Some Months past, I understood by a Relation she had in Town, who first brought her to me; that the Ulcer, in Spight of all Endeavours, spreading, eating deeper, and I am inclining to believe, proving at last cancerous by rough Usage; one Night upon a Fit of Coughing, the external *carotid* Artery burst, and she sunk in few Minutes after.

Of the SARCOMATOUS, or fleshy TUMOUR.

Having dispatched the *Encysted*; the next of *Of the Sar-*
the *Chronical* Tumours I shall observe, is the *Sar-*coma.
coma, being defin'd a *fleshy Tumour*, arising in
any Part of the Body, from some Effusion of the
nutritive Juice out of their Tubuli, as happens
in Contusions and by some other Accidents. This
Tumour being certainly made up of the same
Materials, and having the like Manner of Ac-
cretion

cretion with that of other Parts, but with this Difference only, that the latter is restrain'd by the Course of the Vessels, to some certain Figure and equal or regular Dimensions, whilst the former is *inform*, and under no certain Restriction or Limitation.

For when this precious Liquor, by Reason of some Obstacle is perverted from its primary Use or Office of nourishing some certain Parts, rather than lye unactive; busy *Nature* will be still forming something thereof, however rude or unshap'd, as well as useless it may prove.

The same *Lusus* or Aberration is daily seen in Plants, with the like Excursions of their *Sap*, analogous to the Blood of Animals, when by some Accident of Let or Stop in its more regular progressive Motion, it is forced to deviate or turn aside out of its Channels.

A Digression concerning the Analogy between Plants and Animals. And truly, whoever strictly surveys the *animal* and *vegetable* Bodies, may find a greater and nearer Resemblance than at first they might imagine; so great indeed, that the ingenious *Botanic Anatomist*, Dr. Grew, tells us, that what the *Viscera* are in Animals, the Vessels themselves are in Plants: That is to say, as the one are Vessels conglomerated, so the Vessels of the other are *Viscera* extended or drawn out in Length. But to carry this Similitude a little farther other Ways, if we look to the outer *Teguments*, has not the *Plant* its double Skin or Cover, as well as the *Animal*? If more inward, has it not its *parenchymatous*, as well as *fibrous* Substance, together with its *Medullary* the *Pith* in its Center? In which the *Succus Nutritius*, like that of the Nerves, after many Percolations refin'd, and being arrived at its utmost Purity, here reserved, like that deposited in the *Glandules* of the Brain,

Brain, for the most noble Uses? Has it not its proper Vessels, in which, as the Blood of Animals, in their *arterious* and *venous* Channels, its Juices are duly circulated; its *Air-vessels* for Respiration, its *Lymphatics* and *Lacteals*, [for such like are the Gum, and *resiniferous* Vessels] and consequently their Parts suitable to our Glands, wherein these Juices are secreted, before conveyed into their said Pipes or Passages.

No Wonder then that *Plants*, as *Animals*, should have their States of *Sickness*, as of Health, that *half Palsies*, and some Times a total Deprivation or Extinction of the vegetable Life, should instantly befall them: What else is the *Blight*, which in one Night's Time entirely kills the one Side of a flourishing young Tree, but a Sort of *Hemiplegia*; or what is that, which by a Flash of Lightning or a Clap of Thunder instantly destroys the whole Plant, unless a Sort of *Apoplexy*? But leaving the *internal*, let us come to the *external* Maladies; and here we find them with our selves, as liable to *Wounds*, *Contusions*, *Fractions*, *Ulcers*, *Cancers*, *Gangrene*, and *Mortification*. Lastly, which gave Rise to this Deviation, do we not daily see, that by Impediment some Way given to their nutritious Juice, taking into their accustomed Tracts in a right Line, they oftentimes deflect, *Qua datur Porta*, to the Sides, where wanton Nature, from the said luxuriant Juice, forms diverse *Excrescences*, as in the *animate Species* is to be observed?

Thus, what are the lesser *Tubercula*, projecting up and down the *Cortex*, but so many *Warts* and *Corns*? What the larger indurated Knots thereon, but as many *Nodes* or *Schirri*? What the softer Extuberations, but as many *Sarcomata*? The *gummy Exudations*, but a Sort of *Sin-*

novæ, or *nervous Gleets*? Not to mention the *fungous* Adnascencies observed in some of the vegetable Kingdom, such as the *Agaricus Laricis*, the *Viscus* and *Gallæ Quercus*, with others; wherein the ludicrous Sports of Nature, with her *Superfetations*, are conspicuous; but asking Pardon for this Digression, we return to our Subject.

Difference
between
the Sarco-
ma and
other Tu-
mours with
the Cure.

The *Sarcoma* is distinguish'd from the Tumours last observed, in that it has no *Cystis*, or proper containing *Capsula* like those, nor is it moveable as they are; neither yet does it give Way as the rest to any Pressure, having no Cavity, but is firm, compact, and more solid.

As to the *Cure*, whoever reflects upon the Nature and Matter of this Tumour, will easily apprehend it is to no Purpose to expect it should either be *repelled* or *discussed*, and as little to hope for *Suppuration*; since it is made up of Flesh it self, or the extravasate *nutritious Juice* here carnified, and turned to a solid Substance: And if the *Base* or Foundation thereof be not small enough to allow of the *Ligature*, as has been said of some of the other Tumours last recited, it can be no otherwise removed than by Knife or Fire, either *actual*, or *potential*: By the first, I mean the *hot Iron*; by the latter, the *Escharotic*, or *Caustic* Application.

It may indeed so happen, as to want all three, not only to stay the *Hæmorrhage*, or Flux of Blood, but to eradicate and consume the *Base*, which being done, and the Wound digested, you are to incarn, if there be Occasion, or otherwise to dry up the Remains into a *Cicatrix*, as shall be hereafter directed.

A Caution. But before you enterprize any of these Operations, you are thoroughly to examine the Nature

ture of the fleshy Body you are about to eradicate, either of these Ways: Thus, *when of a mild Appearance, soft and tractable, of the natural Colour or kindly Aspect, attended with little Pain, situate free from the larger, or fed only by some capillary Blood-vessels, clear also of the Nerves and Tendons, in a good Habit of Body, and a governable Patient, there will be greater Encouragement. On the contrary, when hard, livid, unequal, painful, seated on the Joints, or among the tendinous Parts, nourish'd by some large Artery, the Body cacochymical, and the Sick unruly, 'tis better not to meddle therewith.*

Farthermore, observe in all Operations of this Kind, and indeed in many others, tho' seemingly of less Moment, it will be requisite, that the Patient's Body should be prepared three or four Days before, by *Plebotomy, Clysters*, or lenient Purgation; as also an abstemious Diet, which latter ought to be continued through the whole Course of the Cure, to prevent a Fever with the consequent Symptoms; and this shall suffice for a *Prognostic* as well as *Cure*. However I shall farther enlarge to inform you, that the *Nostril* is a Part remarkable for a certain *Species* of this Disease, which, when arising in the Nature of a common *Fungus*, or *Hypersarcosis*, or stopping some Part of the Passage, is properly enough denominated a *Sarcoma*: But when sprouting in the uppermost Part thereof, from several fibrous Shoots, and gradually enlarging as well forwards to the *Alæ Nasi*, as backwards behind the *Uvula*; it is termed *Polypus*, from its supposed Likeness to a Fish of that Name. They have both the like Manner of Growth with other fungous Excrescencies, being as spongy oftentimes, as those about a *Fontanel* in some lax and over

over moist Habits, through the constant Humidity particularly in this Place, which is a Sort of *Emunctory* or Sink to the Brain; and constantly receives the dripping *Serum* or *Mucus*, separated by the Glandules thereof.

The former often riseth from some Ulceration, or crusty Scab therein pick'd off, or hastily remov'd, by which the Parts being made raw and bloody, this spongy Flesh ariseth; the latter seems to pullulate from some capillary Artery, terminating in the investing Membrane on the Inside of the Nostril, some Way distorted; or its Liquor by some Let obstructed in its Return, here carnifying and gradually increasing, divaricates as well downwards, and appears in the Inside of the Nostril, as with its fibrous Shoots above; where, as before observ'd, some Parts thereof are discoverable behind the *Os Palati*; whence, as well as forwards, they are often extracted together with their Roots.

The *Sarcoma* or *Fungus* stopping up the Passage of the Nostril, may be first attempted with the stronger Restringents, blown up with a Quill, or conveyed with an Instrument to the Part: Such as the *Pulvis Gallarum immat. Cort. Granat. Flor. Balaust. Sumach. Hypocistis*; or these proving insufficient, a *Catheretic* may be admix'd, as the *Calcant. Alumen, Vitriolum*, also the *Mere. Præcipit. rubr.* And after the *Fungus* is hereby wasted, for *deterging* and drying up the same, you may dress as has been directed for the *Ozæna* or Ulcer in these Parts, observed among the *stomous Symptoms*.

The *Polypus* may be set upon after the like Manner, but if seated kindly for the Work, appearing *mild, not black, livid, hard, or painful*, as remark'd before, but *soft, pale, or reddish, indolent*

lent

lent and well condition'd, the best Way is by the Forceps for that Use invented, to extract it whole with its Branches, as but now observed.

Note, that in conveying your *catheretic* or *caustic* Medicines to the *Fungus* it self, you carefully avoid as much as possible, touching any of the sound Parts round about : Wherefore the *Alum* or *Vitriol* Stones, or the *lunar Caustic*, being fixed in a Quill, are usually and conveniently enough thrust up against the *Sarcoma* or fleshy Body, and held there for a few Minutes ; or the End of a Probe dip'd in the *Butter* of *Antimony*, may be conveyed to the same ; which being removed after some little Time, in Case of Pain, warm Milk, or Barley Water may be injected, to demulce and assuage the same, and take off, or prevent any Inflammation thence arising.

The *Tonsillæ* that are *sarcomatous*, we described among the *Species* of the *Strumæ* : So that giving you one Instance of a large Tumour of this Sort, I cut off many Years ago ; I shall conclude my Discourse of the *fleshy* and proceed to the *watery Tumours*.

A poor Man, who had been used to carry Hist. xxi. great Burthens for his Livelyhood as a *Porter*, began to observe much Uneasiness upon the Back or hinder Part of one of his Shoulders ; but overlooking it some Time, till his Knot was thereby ready to be thrown upon one Side, he at last took Advice of several, who endeavour'd to disperse the Swelling with *Ointments* and *Plasters* of several Sorts ; but notwithstanding all they could do, it still improved and grew larger, so that he was forced to lay aside his *Knot*, and to undertake nothing but what he could carry in his Arms or upon his Head.

After

After several Years that he had been thus afflicted, he consulted me ; I found a Swelling as big as a Penny Loaf, which at first I took for one of the *encysted steatomatous*, or *gypseous* Tumours; but upon stricter Search, finding it more solid and compact, and fix'd upon the superior *suprascapulary* Muscle, extending towards the *Acromium* one Way, and within as small a Space of the *Vertebræ Colli ac Thoracis*, on the other, feeling solid and fleshy, I concluded it a *Sarcoma*, arising first of all very probably by Contusion; whence, from some broken or distorted *Tubuli*, the nutritious Juice was spilt and effused, which gradually enlarging by a fresh Supply of the same, or fed by the capillary Vessels growing up with it, it was arrived at its present State, and by a farther Extension of the outward Tunics, seemed likely to improve to a much larger Bulk; so that I made no Scruple to deliver my Opinion peremptorily, that *Excision* was the only Remedy, and that it was, so far as I could apprehend, safely enough situate for the Operation.

Upon which having some good Friends concerned about his Cure, I prepared his Body by *Bleeding*, *lenient Purgation*, and two Days regular and more abstemious living than at other Times: When one Morning being provided of my *Apparatus*, [*Buttons of Lint roll'd up hard, which being arm'd with restringent Powders were to be clapt up close to the Mouths of the Vessels, large Pledgits of the same, stiptic Powders ex vitriolo Romano, Chalcanto, Alumine, Bolo, also a Vial of the Aq. stiptica, ex Phlegmate Vitrioli cum Ol. ejusdem Præp. actual Cauterics in a Chaffingdish of lighted Charcoal just at Hand, a Bason of Oxybate, cum alb. ovor. a Plate of Farina volatilis, Compresses of Tow and Cloth, and a two beaded Roller*

Roller with scapulary;] setting the Patient on a Stool with his Back to the Window, and an Assistant on each Side of him: I began by passing a Couple of Needles strung for the Use, like those employ'd for excising the Breast, cross-ways through the Body of the *Tumour*, which enter'd not but with some Force, and seem'd to pass as through a Kind of grisly Substance very little sensible; when taking up the four Tails of the Silk in my left, with my Knife in my right Hand, I cut from the upper Part downwards, keeping as close to the Basis all the Way as I could, till I had brought away this preternatural Body. Upon which two arterial Branches spurted out, and when I had suffer'd them to empty a little while, I singed with a little Button Cautery for Security, and presently restrain'd the same; the rest of the Wound I cover'd with the larger Pledgits, sprinkled with Bole, over which a Pad of Tow dip'd in the *Oxycrate*, and strewed thick with the *Farina*; after that the Cloath-Compress with more of the same, and lastly the Bandage, each Head thereof decussating under the Arms, or passing one End on one Side, whilst the other was brought to the opposite; then taking several circular Turns round the upper Part of the Chest, and fixing the *Scapular* as a farther Security, I finish'd my Dressings for the first Time, and put him into his Bed.

Two Days after, I loosened the same, and cover'd the Wound at this second, with a large Pledgit armed with that common Digestive, *ex Terebinth. cum Ovi Vitello*, dip'd first into a warm Mixture, *ex Linim. Arcæi, cum tantillo Ol. Terebinth.* Thus in few Dressings, the Wound being *digested*, the Gleet ceasing, and the *Symp-*
tomatic

tomatic Fever gone off, observing some Inequalities in the Ulcer, I sprinkled the same thick with the *Præcipitate*, and continued the Digestive some Time longer: But the Flesh being of an uncommon Hardness, would not give Way thereto; wherefore strewing on the *Calx viva*, I laid over a Pledgit of Liniment only; but notwithstanding this or the prepar'd Lint, the *Vitriol* or *Allum* Stones, this horny Substance would not be level'd in some Part of the Edges, where the Knife had not gone deep enough, as also in two Places near the Center; wherefore having first tried the *lunar Caustic*, and the *Butter of Antimony*, and finding them too slow in their Effects; also, all Things consider'd, more painful, I prevail'd for a Touch or two with a flat Cautery upon these little Hillocks, having two of them got ready for that End, which I used *alternatim*, and took down those callous Inequalities, the Patient suffering it with great Resolution, and very little Complaint; tho' the Trial I think, carried much more of Terror, than Torture, this Flesh having so few of the nervous Filaments interwoven in its Texture, must needs render it less sensible both to the Knife and Fire, as I observ'd it was to the Needles passing through at first

These new *Eschars* were treated like other *Combustions*, with Pledgits first arm'd, then dip'd in the warm *Basilicon*, mix'd with a little *Liniment* run down along with it, together with a few Drops of the *Ol. Tereb.* whereby separating, and the Surface now smoothed, to prevent its repullulating, I left off the Digestive, and lightly strewed on the *Calx viva* for the more strongly desiccating the Flesh, and bringing on a *Cicatrix*, which after three Months was firmly accomplished

complished by the fine Powder of *Lapis Calamin.* dry Lint, and sometimes a Touch round the Edges, with the *Lapis Cœlestis*, or *Vitriol Stone*, with an external or superficial Pledgit of my *Cerat. de Lap. Calam.* since which he has remain'd well, tho' he could never be persuaded after to carry Burthens upon either Shoulder.

A Case of some Resemblance to this, tho' more Hist. xxii. unhappily situate, and much more rebellious through its malign Quality, I had a View of near the same Time, on a Gentleman who came to Town, and took a Lodging at an Inn within *Bishopsgate*; the Tumour stretching it self from the upper *Spine* of the *Omoplate*, or *Scapula* behind, to the Top of the *Humerus*, and thence overspreading Part of the *Deltoides* Muscle. It was taken off by Mr. *Charles Bernard*; but the Ulcer proving stubborn, and shewing after its *Cancerous* Disposition, threw out large *Fungi*, which neither submitting to the *Escharotic*, nor to the *Cautery* it self, in the midst of great Anguish, *Hæmorrhage* and *Gleet*, together with as great Expence of Spirits; these latter being exhausted, and the Tragedy at last falling upon the *nervous System*, the unfortunate Patient, notwithstanding all that Art could do, sunk under the Disease.

This Kind of Tumour seated thus between Natta. the Shoulders, or upon the Back, is by the ancient Writers called *Natta*, being made up as often of a *Fat-like*, or suety, as of a *Flesh-like* Matter, whence by others it is reckon'd among the *Steatomata*.

One of the largest of these that I remember to have seen, which cover'd in a Manner both the Shoulders, bunching out like an half Peck Loaf, having been first of all attempted by an ignorant, Hist. xxiii.

rant, but bold Woman, with an *Escharotic* of the *Sublimatus Corrosivus*, mix'd up with some Ointment and spread Plaster-wise, all over the *Superficies* thereof, by which such horrid Pain, Convulsion, expensive Gleet, and other febrile and nervous Symptoms were hastned, as had brought the poor Patient [before a robust Man] into the most imminent Danger of his Life: Which, after some Days palliating and recruiting, was in like Manner with the former, taken off by that ingenious and fair Practitioner, Mr. *William Petty* of *Fenchurch-Street*, a Gentleman, who has all the Qualifications of an honest and able Artift to recommend him.

The remaining Tumours we propos'd to take Notice of, as belonging to the *Chronical*, are the *aqueous* and *flatulent*; of the first Sort, by the Surgeons are usually reckoned the three following, *Hydrocephalus*, *Anasarca*, and *Hydrocele*.

There are indeed other Tumours from Water, as the *Hydrops Pectoris & Abdominis*, which last is usually called *Ascites*; but these particularly fall under the Care of the Physician, and so truly does the *Anasarca*, tho' when complicate with *Ulceration*, *Gangrene* and *Mortification*, the Surgeon is to be consulted: However, overlooking the two last, we shall speak to the three first, and begin with a short Account.

Of the HYDROCEPHALUS.

Hydrocephalus, its Cause.

This, as the Name implies, is a watery Tumour of the Head, either seated on the Outside of the *Cranium*, or within, altho' this latter should I think be named *Hydrops Cerebri, vel Hydrops Membra-*

Membranarum Cerebri: But it is the external Tumour that we intend in this Place, which we define a *dropfical or watery Swelling of the hairy Scalp, or between that and the Pericranium*: The Cause of which may be ascribed either to a Redundancy of serous Humour in the Blood, oufing forth its capillary Vessels, or to a Diffusion of the same from some Contusion or Distortion thereof, as by Blow, or Fall, as also by Compression of this Part in Child-Birth, whence the Freedom of Circulation being impeded, the serous Humour gleets all round, and raiseth this pappy Swelling. How far a too great Stricture of the Pores in the Skin of this Part, may at some Times, by inhibiting the Perspiration, farther thicken the Scalp, the Part here chiefly affected, I cannot say; but a Want of Heat in the same, as lying betwixt the Bone, its Membrane, and outward Tegument the Skin, will doubtless retard the Dissipation thereof.

This Tumour is distinguished from *Oedema*, by its deeper Pits or Impressions, and their somewhat longer Continuance after the removed Impress, being rather an *Anasarca* of the *Scalp* or *Skin* of the Head; and thus far of the Description and Cause.

For the *Prognostic*, the *Hydrocephalus* may be accounted more or less dangerous, according to its Situation; and thus if it lies only between the Skin and the Skull, there is less Danger; if between that and the *Dura Mater*, more; and still greater, if the Brain it self be delug'd by the serous Humours distending its Ventricles and whole Substance, as appears oftentimes upon Dissection.

Again, the Danger is greater, where the Tumour ariseth from some Cause internal, such as the

Weakness of the Blood itself, some Rupture of the Lymphatics, or Overlaxity of the Vessels, than when occasion'd by Contusion or outward Compression: Lastly, there is more, where the Distemper is complicate with a Dropsy of the other Parts, than when it is a Disease only of this.

Cure.

In Order to the Cure of the *Hydrocephalus*, much the same Method is to be taken, as was directed for the *Oedema*; altho' some will not allow the Stuphs wrung out of the Fomentation, to be applied so hot, by Reason of the Nearness of the Brain, and its Membranes.

But when by these Means some Part of the Water is raised into Vapour, and discussed through the Pores, the Remains may be dried up by the restrigent *Fotus* and *Cataplasm* directed for that Tumour; and where the Distemper increases, or gives not Way to this Method, the Scalp must be prick'd and scarified with a Lancet in sundry Places, by which, as out of so many small Rivulets, the Water may distill or drip forth; after which foment with your *Discutients* as before, or mix'd together with *Restringents*, that may keep open the Pores and dry up the Remains, which at the Close must be still more stiptic and corroborative, to invigorate the Fibres, and shut up the Mouths of the weeping Vessels, that their farther Effusion may be prohibited thereby.

During this, a strict *drying Diet* must be prescribed, such as was observed for the other cold and *phlegmatic Tumours*; gentle *Hydragogues* being given at proper Intervals, such as the *Rad. Jalapii*, or its Rosin, with a few Grains of *Calomelanos*; if the Infant be very young [and such usually are the Subjects of this Disease] the *Syr. Ros. Sol.* or that *de Cichor. cum Rheo*, may suffice;

fice; whilst, for farther Derivation of the Humour, *Vesicatories* may be applied to the Neck and behind the Ears, and continued for some Days, Weeks, or Months, like those we call *perpetual*; also a *Fontanel* in *Nucha*, so soon as the Child is born with this Infirmary, or where the same is fear'd; for such by Reason of their weak Heat, and greater Humidity, are most liable to the Disease: These, I say, are both conducive to the Cure, as well as a Preservative against Relapse; and truly tho' an *Epsipastic* on the whole *Scalp* seems too severe a Remedy for that tender Age, yet I have found a couple of small ones behind the Ears, kept open as above, both very tolerable as well as serviceable in the like Cases. And here give me Leave to acquaint you, that having applied the common *Epsipastic*, of what Magnitude you think proper, and thereby raised a *Blister*, you may keep the little Mouths of the Vessels constantly weeping and discharging their Humour by slightly smearing over the common *Melilot* or other Plaister, such as *de Minio*, *Diapalma*, or *Diachylon simplex*, with this following *Liniment*.

R. Unguent. *Basilic. vel Aurei vel Nigri*, ℥j. The perpetual *Cantharidum in subtilissimum pulverem redactorum* equal Blister. *zj. Ol. Olivar. q. s. ut exinde liquefactis, f. Lintus ad usum supra præscriptum.*

This *Liniment* may be made either stronger, or weaker, by adding to, or diminishing from, the Quantity of the *Cantharides*; for as the Texture of the Skin differs in diverse Subjects, not only in Regard to the Structure of the *sudoriferous Glands*, the *Sweat-vessels* and the *excretory Ducts* thence arising, but also in its *reticular Compages* of *Arteries, Veins, Nerves, and Lymphatic*.

phatic Vessels, here admirably interwoven: So can there be consequently no exact Standard fitted, or prepared to suit with all.

The same *Stimulus*, which will overhaul and vellicate, nay prove in a Manner *Septical*, and induce a Slough on some tender Skins, will scarce twitch the more robust *Fibrillæ* of others, at least not sufficiently to make them spew out their Contents; not to mention the different Degree of Viscidity in the *Serum* or *Lymph* it self discerned, which with more or less Difficulty is to be discharged. But waving this, I shall give you one Example or two of the Disease, attended with some uncommon Appearances, and proceed to the other *aqueous* or watery Tumours before mention'd.

HIST.
XXIV.

A Child [about three Years old] of an eminent Merchant, having, from its Birth, been subject to obstructed *Viscera*, grew about this Time *Ricketty*, with the *Apophyfes* of the Joints preternaturally bunching out or knotty; the Head also, which was originally large, began to appear *Oedematous*, with the Face in like Manner bloated.

Dr. Edward Tyson was their Physician, and prescribed several *deobstruent* Medicines, some of them reckon'd as *Specifics* in that Disease; as *Apopses*, *ex Rad. Cichor. Filic. Mar. Osmundæ regal. Cort. Cappar. Median. Fraxini, Tamarisc. Fol. Agrimon. Ceterach. Ling. Cerv. Capil. Ven.* interchangably one or other, as he thought convenient, edulcorated with the *Syr. Capil. Ven. vel de 5. Rad. Purgatives* likewise to carry off the serous Humour by Stool, *ex Rheo cum Calomel.* in the *Syr. Viol. Rosar. vel de Cichor. Juleps. ex Aq. Fœnic. Lumbric. mag. & Syr. Capil. Ven.* Expressions of the *Millepedes* in the same Waters,

Waters, also *Chalybeates*, such as were suited to the Age, to invigorate the Blood, and give a Spring to the Fibres, as the *Tinctura Mart.* and the *Syrupus Chalybis*. A *Fontanel* was made *sub Nucha*, and *Vesicatories* applied both to the Shoulders and behind the Ears, which were continued open by a fresh *Stimulus* from the drawing Ointment before mention'd several Weeks; and this in the Way of the *Physical Prescription*.

To the Scalp, which was overflow'd with a watery Humour, I applied thin double Flannels wrung hot out of the following Fomentation, and suffer'd them to dry on, repeating them twice a Day.

R_x. Summit. Rorismar. Fol. *Salviae Beton.* ā Mj. Flor. Samb. Chamomel. ā Mß. Anthos, Lavendul. ā. Pj. Coq^{tr}. in Aq. Calcis, q. s. pro Colaturæ *Hij tempore Usus infundendo tantillum Spir. Vini Camphorat.* & f. Fetus, in quo intincti pannilanei molles, calidèque ac strenuè expressi, applicentur circumcirca, Calvario prius raso, per Semihoram pro uno tempore, & renoveantur eodem modo bis quotidie, Mane scilicet & Vesperi.

Nevertheless the Distemper being out of the Reach of Medicine, altho' the Scalp seem'd by the outward Application to be much thinner, and the extravasated Serum thereby discuss'd; yet upon the Discontinuance thereof but for two or three Days, a fresh Supply came on, and at length falling into a *Coma*, he was carried off suddenly.

The Day following, in the Evening, I open'd the Head, the Doctor standing by, making a strait Incision with my Knife, from the upper Part of the Nose, or between the two Or-

bits, over the *Sagital Suture*, to the lower Part of the *Occiput*, the Skin however flabby being now fallen and subsided, which with a *Spathula* making Way for my Fingers, I therewith stript and turned down below the *Ossa Petrosa* on each Side, laying so much of the *Cranium* in View, that by passing my Saw circularly through, the same might be raised up, and the Brain thereby exposed to our Observation.

This single *longitudinal* Incision, I think much neater than the *crucial*, as less mangling the outward Part, and when the View is over, and the Skull laid down again, the Scalp drawing over shuts all close, and which I have sometimes so ordered, where the Hair especially is clipt only, that the Stitches being thereby obscur'd, the Corps has been after expos'd, without observing, that the Head had been ever look'd into, or the Brain dissected: But this by the Way.

When I had with the Back of my Knife ras'd off the *Pericranium* to make Way for the Saw, I drew a Thread dip'd in Ink around for its Direction, then bearing gently therewith, first of all upon the right *Bregma*, till I had made a shallow *Sulcus*, when pressing somewhat harder, the same split in unawares, and a Bloody *Serum* ous'd forth in great Quantity, or rather a serous Humour tinged with Blood, upon breaking through the spongy *Cranium*: Whereupon, observing the soft Nature thereof under its outer Shell, or *Lamen*, I gently went all round the Superfice of the Remainder, to avoid the like Inconvenience, and entring the Point of a strong dissecting Knife in the Place I had first slip'd through with my Saw, I cut the rest quite through with little Trouble; then lifting out the

the divided *Cranium*, I was surpris'd at the uncommon Make, great Thickness, and Softness thereof, measuring about the *Ossa Frontis* and *Occipitis* more especially, above half an Inch, in some Places three Quarters, the outer and inner Plate being exceeding thin, whilst the intermediate Substance was a loose *Compages* of bony *Striæ*, confusedly passing from one Side to the other, or a Kind of *Diploe*, or Cells made up of the said *Striæ*, fill'd, I cannot say so properly with a *Meditullium*, as a *Cruor* or bloody *Serum*, which running out of the Cells upon their Division, had colour'd the said *Serum*, diffusing it self from some light Gashes made in the *Crassa Meninx*, by the Point of the Knife slipping in some Places through the same.

When we had made our Remarks upon the Skull, and going to lift out the *Encephalos*, a Stander by, belonging to the Family, told me, she had express Orders to forbid our Proceeding farther; wherefore, imbibing what I could of the *Serum* with Sponges, I contented my self in taking a View of the same *in Situ*, and snipping up the *Dura Mater* in its whole Length, suck'd up after the same Manner the Remains of the ferous Humour.

In parting the *Falx*, and turning the two fore Lobes aside, to have a Sight of the *Medulla oblongata*, a more limpid or clear Liquor arising from the Ventricle, broke forth in a large Quantity.

But replacing these, and pressing the *anterior Limbus* somewhat backward, that I might see the *Optic Ocul. Motor.* with the rest of the Nerves passing thro' the *Orbits*, and *Foramina narium*, I perceived them so exceeding tender, that they broke off so soon as ever they came into Sight.

Hence proceeding backwards, and raising the hinder *Limbus* in like Manner, that the *Crura* of the oblong Marrow might present, more of this ferous *Latex* I found had been there floating; so that the whole Brain lay as it were steeped in a Pond of Water as well within, as on the outside; and yet the Child but few Days before its Death, was as sensible as most of its Age.

Thus having [tho' but slightly] observ'd those Parts of the Brain, peculiarly so denominated, without meddling with its Appendage the *Cerebellum*, sitting on the upper Part of the *Cranium*, I instantly drew up the Scalp on each Side, and stitching the longitudinal Incision, left the Head as seemly as if it had been untouch'd, even before the Dressings; but when the Cap and Fore-head Cloath were put on, the passionately fond and sorrowful Mother was admitted, who, tho' lifting the Head from the Pillow; could scarce believe that the same had been open'd.

I could not choose, but take Notice, that in pressing, however gently, upon the *medullary* Parts of the Brain, it seem'd to deviate through its whole *Compages* from its usual more firm Contexture; whence to difference its Nature from the softer *cortical* or *cineritious*, it had its Denomination of *Callous*; but in this Subject so exceeding pappy, separable; and as it were rotten, that it might rather be termed *Pulticular*, scarce suffering the Touch without being, as it were, mark'd thereby.

* And here indeed I have been often put upon a serious Consideration, how such a Heap of Pul-

* A Digression concerning the Imperfection of our Knowledge, in Regard to the Brain and its proper Offices, particularly Sensation, and Intellection.

tis like Matter, a kind of *Quag* or *Bog*; and which, as *Sydenham* observes, carries so little *Analogy* in its Form, and appears seemingly so unlikely to manage an Office of *Intelligence*, should yet be qualified for the same; that here I say, as in some great *Emporium*, the Business not only of *Sensation* but *Imagination*, *Memory*, *Reflection*, and *Ratiocination*, should be principally kept and transacted: Or that as the Rays of Light from the Sun are instantly transmitted to all the sub-lunary Parts of the great World; so hence the *Sensitivum Quid*, in like Manner, through the nervous Tubes, having here their Origin, should as suddenly as those Rays darted from that great Luminary, be likewise conveyed to all the Confines of the lesser; or that hence, as swiftly those imperceptible Messengers called *Animal Spirits*, should at the *Nutūs Animæ*, rush through their meandrous Paths like Lightning, and having dispatch'd the Mandates of the Will, as speedily bring back their Errand to the common *Sensory*. That here, I say, the *Soul* should hammer out the *liberal Arts and Sciences*, and furnish the Knowledge of most other Beings, whilst she retains so short a Glimpse of the *Ὀν ὄντι*, or rather still remains in almost perfect Ignorance, how these Appearances are really brought about. *Astonishing surely this!* A most stupendous Providence! And may we not surmise, design'd at least to humble us, if not to acknowledge our Dependence, when we reflect that the same *supreme Being*, who, as the *sacred Records* witness, said to the proud Waves, *hitherto shall ye come, and no farther*; has laid the like Injunction upon the most prying Eye, the most expert and inquisitive Dissector, whether *Physician* or mere *Naturalist*, when he has look'd over the other Parts, the Fabric of
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the Muscles with their Geometrical Proportions, the Articulations of the more stable ones, the Bones, the Divarications of the Vessels, *Veins, Arteries, Lymphatics*; the admirable *Mechanism* of the Organic Parts, so well adapted to their several Uses; nay, even the curious Filaments, or *Plexus* of the *Nerves* themselves, with their Source at this Fountain Head, the Brain, meet now with the same *huc usque, sed non ultra*.

For would we confess the Truth, how short indeed thereof are all our *Hypotheses* and *Philosophical Systems*, even the modern ones laid down by the Mathematicists themselves, concerning some of the inferior Acts of the animate Bodies, *Sensation*, and *muscular Motion*: Where, instead of the *Demonstration* those Gentlemen pretend to, we must put up with Probability; and *Verisimilia* are to supply the Place of the *proprie ac realiter vera*: How can we think otherwise, when even the Foundation of some of them is yet disputable; and in the Schools it has been lately made the Matter of a public *Thesis*, *An dentur Spiritus Animales? An Anima ipsa sit materialis, vel immaterialis?* Either Side of which Argument has its public Opponents: *Nam si prior, cogitatio, ac Materia sunt res incompatibiles; si posterior, Substantia immaterialis non potest agere in rem materiale.*

These Difficulties have perplex'd the greatest of our Naturalists as well as Physicians; tho' I think this last Age, however degenerate, hath produced among the latter but one open Champion, how many soever lye under Covert, for the *Materiality* of this Being, who, tho' bold enough and bare-faced, is still a Coward.

In the midst of these dark Glimmerings, or rather in a Mist of Darkness, through all Ages past;

past, stands yet this *Primum mobile*, the Soul, and what better Insight our late *Mathematicians* have given us, in explicating this *Phænomenon* of Sensation, let others judge: Whoever I think looks over one of their Descriptions of
 ‘ the arterial Fluid passing the Origin of the
 ‘ Nerves, and there constituting a two-fold Sub-
 ‘ stance, the one more subtile, dignified with the
 ‘ Name of Spirits, the other viscid, and gentlier
 ‘ drilling through the nervous Tubuli; and thus
 ‘ saith he, as animal Motion is effected by an Ef-
 ‘ flux of these Spirits into the Muscles, or by their
 ‘ direct or longitudinal Motion, so is Sensation by
 ‘ a Reflux of the same towards the Brain, the
 ‘ Origin of those Nerves: For since there is a Re-
 ‘ flux, as there must be in every Sensation, that
 ‘ is, the Object striking and compressing the Extre-
 ‘ mity of the Nerve, either by it self, or some Par-
 ‘ ticles flowing from it, whence the Part next ad-
 ‘ joining is dilated by the refluxent Fluid, the next
 ‘ above being contracted in the Interim; and so by
 ‘ these alternate Contractions and Dilatations, an
 ‘ undulatory Motion is excited in the Nerves;
 ‘ wherein, saith our Author, † the mathematical
 ‘ Foundation of Sensation consisteth.

Now whoever, I say, considers, or reflects upon all this, together with what follows, ‘of
 ‘ the Conflux of the nervous and arterial Fluids,
 ‘ with their sudden Rarefaction and Expansion of
 ‘ the same every Way, either of one or other, or
 ‘ of both, as they flow into the Muscles, which
 ‘ are farther necessary to that Motion, will find
 the same however fitter adapted, yet as short
 I think of that Sort of Demonstration it pre-

† Pitcairn, in his Elements of Physic.

tends to, as the *Willisian Explosion* they have so much derided; several of these Explications being I think rather *gratis sumpta atque dicta*, than *mathematicè probata, vel demonstrata*; and which perhaps we may live to see demolished, in Order to make Way for some other Superstructure.

Thus far indeed we seem to be incontestably arrived, *viz.* that this *Pulp*, or pappy Substance, we call the *Brain*, is the prime or chief Residence of what we call the *Soul* or Mind, from whence her Mandates issue forth; that hence those little Threads, the Nerves, have also their first Rise or Origin, like so many Couriers or Messengers, either conveying by simple Contact, their Intelligence, or containing somewhat that does some Way or other [but we know not how] convey, or deliver the same as well to, as from the *common Sensory*, is also indisputable. But how all this, I say, should be transacted quick as Thought, or indeed how Thought it self should influence those subtile Bodies called *Spirits*, or the supposed nervous drilling Fluid, in the Manner explicated, in Order to this Sense and Motion; or finally wherein this Thought consists; is still as much a Mystery, as in the Days of *Galen* and *Hippocrates*, and all that has been said amounting to little more than Guess or mere *Hypothesis*, the *Phantoms* of speculative Men, bewilder'd in their own Imaginations; and hence, no Wonder, the Diseases of the nervous System, or those we call *Cephalic*, are so much above our Reach, and, as it too often proves, so unsuccessfully attempted; so that it was not without great Reason, that the candid and judicious *Sydenham*, who had so accurately and graphically described others, both *Acute*, as well as *Chronical*, being asked, why he had not decypher'd al-

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so the Diseases of the Brain, ingenuously replied, *because he did not understand them*: But returning to our Subject.

That the Heads of all *Ricketty* Children are not thus formed, I think, is plain from Observation; but this is certain, that they are usually much larger than others in their Compass externally, and that from the unequal Distribution of the nutritious Juice, their great Humidity and laxer Habits, not only the Extremities of the other Bones bunch out, or protuberate, but the Skull is more capacious, the Interstice of the two *Tables* wider, or the *Diploe* thicker, the Brain it self also much larger, and sometimes deluged by Serofities overflowing the same

'Tis from this larger Bulk of the *Εγκέφαλος*, that some will have these Children to be more witty, or riper in their Understanding, than others of the same Age; which I see not how should happen, since a dry *Temperies*, if not on the Extreme, seems more likely to retain the *Ideas*, than the Humid. Besides, do we not daily observe an over moist Brain attended with *Idiotism*, *Stupidity*, or some *lethargic Distemper*, whilst the dry runs into *Fury*, *Deliria*, and *maniacal Disorders*? neither the Magnitude of the Skull or Brain contributing surely so much to the Understanding, as the due Modification, or exact *Mechanism* of the Parts, of which this latter is composed.

What hath contributed to such a Remark, may perhaps be this, that these Children being stinted in their Growth, we are apt generally to take them to be as young again, as others of the same Stature, and consequently to be more pleased with their Talk; beside, through Inability to Action, Play, or Diversion, as others, by their sedentary,
and

and as it were contemplative Life, their Imagination is less hurried and distracted by Diversity of *Ideas*, confusedly crowding upon the common Sensory, and therefore what they do conceive, makes firmer Impression and abides longer by them.

HIST. XXV.
and XXVI.

A Skull somewhat like the former, but not altogether so thick, I remember to have dissected in Company with Dr. *Coatsworth*, which he thought might be well enough denominated an *Exostosis totius Cranii*, there being a very great Distance between the two *Tables*, appearing *cellular*, or porous as a Sponge, and admitting the Knife as the former to divide the same.

I once had the View of a Child about two Years old, whose Head measured twice the Compass of another standing by, of a greater Age; it was showed me as an Object of Charity; upon pressing all round the *Scalp*, the same felt exceeding puffy, like the Flesh of Veal blown up by the Butcher, receding upon Pressure, and a *Flatus* breaking through some Perforations or watery *Ulcuscula* near adjoining.

By the usual Stupidity attending these monstrous Heads, I conjectured there might be a ferous Extravasation, as well under, as above the *Cranium*, which tho' very large, yet was vastly disproportionable to the Compass of the external Part, or *Scalp*, the Fulness lying principally therein, appearing rather *Emphysematous* than *Anasarcous*; and indeed it was my Conjecture, that the vile and wicked People, who had the Care of it, tho' one of them went for the Parent, had, if not entirely raised this surprising Swelling, at least very much enlarged the same by *Blow-pipes* enter'd at those *Foramina*, tho' in some Places scarce to be perceived, yet in others very manifest,

nifest, which they said were Issues made in the Country, to drain away the Waters: I intended to have administred all the Help I could, but having given them a Disgust, or by some Expression I had let fall, their apprehending I might detect the Roguery, when I came next Day, the Child was removed, as the Neighbours told me they had given out, into the Country, and I never after could understand what became of them.

Of the ANASARCA.

The *Anasarca* is defin'd an hydropic, or watery *Anasarca*. Tumour, seated between the Skin and the Flesh, or in the Interstices thereof, as the Name implies, of a white, shining, or pellucid Colour, dull of Sense, and pitting as the former; more common to the Thighs, Legs, and Feet [in the Scrotum it being called rather Hydrocele, of which presently] by Reason of their declivè Position when the Body is erect.

The Cause of this Tumour we ascribe to the *Causes* impoverish'd State of the Blood, the Destruction thereof. of its Balsam, and Defect of the native Heat, by which the *Compages* thereof being loosned, and its pristine Tone destroyed, it runs into a serous or watery Humour; and breaking forth the Vessels, diffuses it self round about, till it has made a Kind of Quagmire of these depending Parts.

How far the *Lymphæducts* are concerned also herein, I shall not be positive, it being perhaps not material, since these are derived from the Extremities of the Vessels aforesaid, and carry off the superfluous Serum from the Blood, which by Rupture or some other Way, they may very probably shed at these Times. That

That ingenious Anatomist Mr. Cowper deriving the Origin of these Vessels from the said Extremities, argues thus.

‘ The Rise of the *Lympha* hence is still more clear, if we consider in some States of the Blood, when its *Crafsis* is weakned, some Parts pass this Way, and the *Lympha* is tinged by it, as it happens by injecting Water by the *Arteries* after Death, when Part of the Blood still remains in its Vessels, you will see the *Lymphæducts* fill’d with a bloody Water.

The *Procatartic*, or antecedent Causes are usually what is called now a Days, *good Fellowship*, or *Bottleing*, Morning Draughts, and that pernicious Custom of *Whetting*, under Pretence of creating an Appetite, subverting the same, which being succeeded by the Afternoon’s Tipling, and sitting at it late at Night in little Time destroys the *Esurine Ferment*, if there be any *Ferment* at all, which is denied by some; however that be, relaxing the Tone of the Ventricle, weakens its native Heat and Spring, till at length unbending the *Solids*, and dissolving the natural Compage of the *Fluids*; there is Way made for this Inundation of the serous Humours to break forth their Enclosures, and run out into the Interstices of the Flesh, or dropping into their Cavities, to make a Pond in each of the Venters.

I need not, I think, stay to enlarge, by showing you how from the same Cause, the *Viscera* themselves become putrid, and the *Liver* more particularly rendred *Schirrous*: Whence by Degrees a Stop to all the regular *Secretions*, till the Deluge coming on, and increasing, at length the poor Wretch, who, like *Tantalus*, thirsts in the Midst of Water, can no longer keep his Head above the same, but the rotten Fabric unable
3 longer

longer to support it self, drops down into the Grave.

There is yet another Cause of this Disease, viz. great Loss of Blood, from Accidents of Wounds, Bleeding at Nose, which happens too at the breaking up of the Constitution by hard drinking, the *Hæmorrhoides*, and overflowing of the *Menses*; from whence the Texture of the Blood being weakned, and its *Gluten*, as I may say, dissolv'd, the new Chyle not rightly assimilated, runs out into *Serum*, and overflows the Parts.

In *Prognosticating* upon this Disease, we are to account the same more or less dangerous, according as it is complicate, the Manner and Way it has been produced, the Habit of Body, with the Age of the Sick.

Thus when it is attended with an *Ascites*, it *Prognostic.* is always dangerous, also if it came upon hard Drinking, especially of Spirits or destill'd Waters, when the Bowels are tainted, the Tone of the Stomach or the Appetite destroyed, the Liver grown hard, the Mass of Blood and its Balsam dissolved; the Vessels also, in a Manner lax or half rotten, with the outward Complexion, as it were coddled and iſteritious; the Sick moreover in a declining Age, the Case is ever desperate.

On the other Hand, where there is no Dropsy of the Breast or Belly, or where the Swelling is owing to some accidental Hæmorrhage by Wound or the like, the Habit otherwise good, the Appetite strong, and the diseased rather on this than the other Side of his Meridian, the Cure is hopeful.

About which I shall not stay to enlarge, but only hint to you, that the same is chiefly founded in the strengthening or invigorating the whole Mass, after the superfluous Serum has been carried

ried off by some proper *Hydragogue* before observed, and corroborating also the relaxed Fibres.

The Cure.

This Cure indeed so wholly depending on the inward Prescription, that unless in Case of Ulceration, as formerly observ'd, there sometimes needs no Help from Surgery; excepting also, as falls out sometimes, by prescribing *Vesicatories* to the Parts, in Order to drain away the Serosities thereby, the Physician makes Work for the Surgeon: It being an easy Matter to get the Skin of these People off, but very difficult to get it on again; and how indeed should it be expected otherwise, when the Blood is thus weakned and depraved; its native Heat, and glutinous Particles, both which should assist in repairing the Breach, destroyed; and you have nothing but a putrid or stagnant Humour to furnish the Materials of *Digestion, Incarnation, Agglutination, or Cicatrification*, in the Place of a well constituted and rightly assimilable nutritious Juice, the Medium of them all?

When the Case so happens, you must take Care by a good *Elixiviate*, and *Discutient Fomentation*, prepar'd of the hotter Plants as directed for *Oedema*, or for the Tumour last described, to cherish the decay'd Heat, dissipate the impacted serous Humour, and if possible to keep off *Gangræna*, whilst the Ulceration is dress'd with some warm Digestive, such as the *Linim. Arcei* with the *Bals. Terebinth.* or a little of its Oil, if a *Gangrene* should ensue, after the Manner prescribed for that and the *Mortification*.

Hydragogue Medicines.

The internal Remedies directed commonly to purge off the *serous* Humours, are usually one or other of the following *Hydragogues*, and such are reckon'd the *Gutta Gamba*, the *Cortex*, *Semen* & *Succus Ebuli*, also the *Succus Ireos* nost. the *Pulvis*

Pulvis & Resina Jalapii; Medicines ready compounded, are the *Diaturbith.* and *Diacartham.* For this End likewise serves very well the *Vinum Hydropic.* of *Bates.*

There are besides these certain other famous *Water-purgers*, such as the *Cataputia major*, seu *Ricinus vulgaris*, called *Mexico Seeds*: *Ricinus Americanus*, or the *Barbadoes Nut*; the *Grana Tiglia*, seu *Granadilla*, i. e. *Nuclei Moluccani*, or the *purging Nut of Molucca*: Of Kin to these is our *Elaterium*, prepared of the *Fæcula*, or inspissate Juice of the wild *Cucumber*, which, tho' surly enough, is not so strong as the rest.

But these, how highly soever extol'd by villainous *Quacks*, and bold ignorant *Empirics*, who, if they cure one, kill more than twenty by administering thereof, I purposely pass by, as too dogged and dangerous Medicines, to be given without the utmost Caution and Regard to the Strength and Habit of Body.

Where the Patient is of a declining Age, or too weak to be ruffled by any of the foregoing, you may attempt a Derivation of the serous Humour by the urinary Parts: For which Purpose, the *Sal Succini* given to ʒss. gr. xv. or ʒj. in some diuretic Julap, or Apozem, does good Service; some use the *Pulvis Æthiopicus* in *Bates*, or the *Toad* calcin'd.

The common Remedy, and that no despicable one, I can assure you, in this and other watery Diseases, is prepared *ex Summit. Absinth. ac Genistæ Rad. Raphan. & Sem. Sinapios in vino albo vel Hoccomatens. infusis.* But whatever Way the Water is emptied, the *Bitters* and *Chalybeats* must be ordered between Whiles, to strengthen the *Tone* of the *Viscera*, as well as that of the Blood.

HIST.
xxvii.

A strong young Fellow, of an excellent good Habit, before he had made too free with it, employed in drawing Drink by a Victualler in my Neighbourhood, having been some Time addicted to the Tipling of strong Beer and Brandy, fell at Length into a dropfical Swelling of his Legs and Thighs, Loss of Appetite and short Breath.

When he had tried a great many Remedies recommended to him by Persons coming to the House, and growing still worse, there appearing a Tumour upon his Cod, a Retraction of the *Penis* with a *Chrystaline* at the Extremity, threatening a *Gangrene*; being removed to a Relation's House, he was recommended to my Care by one of them; and tho' I found him with a slow Pulse, and high-colour'd Urine, yet was it not so deep or *lixivate*, nor so little in Quantity, as in the *Ascites* is generally perceived; and his Belly being but small in Proportion to his Thighs and Legs, tho' there was great Difficulty of breathing, yet his short Neck and Purfiness rendring him more liable to the *Dyspnea*, I had entertained some Hopes, that neither his *Liver*, nor other *Viscera* were tainted, but that the Distemper chiefly possessing the depending Parts, I might be able to recover him. In Order to which, when I had lightly scarified the *Præpuce*, I fomented the same with Flannels expressed strongly out of hot Claret, which was soonest provided, making up with a Stuph from the same, and a dry one over it: The next Morning, being provided of a discutient *Forus*, like that for the *Oedema*, with a little camphorated Spirit, I fomented as the Day before; but that I might lose no Time, as laying little Stress upon
Topics

Topics in Regard to a Cure, I directed for the next Day, this following *Bolus*.

R. Gut. Gamb. gr. xv. Tart. Vitriolat. gr. v. Elect. e suc. Rosar. ʒj Ol. Caryophil. Gut. ij. Syr. Viol. q. s. M. f. *Bolus*.

Which purged off a large Quantity of serous Humour, tho' a little roughly, working upwards and downwards, or as Physicians speak, *ἀνω καὶ κάτω*, which having Strength to undergo, I was not concerned at the first, making a powerful Revulsion for the Relief of the *Penis*, the latter also, as I intended, by carrying off the serous Humours, contributing to the lessening of his swell'd Legs; and indeed the very next Day I perceived a sensible Amendment, whence finding him able to bear up under the Operation, and every Way so much better for the same, after a Days Respite, I repeated the *Hydragogue*, which work'd off in about three Hours, giving nine Stools, with less vomiting than the first.

In the mean Time, I ordered every Night, that his Legs should be wrapt up in Flannels dip'd and express'd hot out of three Parts of a strong *Aq. Calcis*, and one of camphorated Spirits, rolled up when he was put to Bed; the like Application being now applied to the *Scrotum* and *Penis*. For his Breath he took two Spoonfuls of the following Mixture lying down, or in the Night, as the same, together with his Cough, proved troublesome.

R. *Aq. Cinnamom.* Hord. ʒij. Mirabil. Oxy-mel. Scyllit. ā. ʒj. Syr. Croci, ʒβ. M.

After his third Purge, we gained very considerably upon the Swelling, he grew also abundantly more lightsome: The *Scrotum* and *Penis* were

were in a Manner entirely free ; his Breath also was so much easier, that he could lye as low in his Bed as formerly, which for some Weeks before he was unable to do, without sitting almost upright, or supporting himself high therein with Pillows.

This encouraged us to proceed, allowing him now two, and sometimes three Days between ; and giving the following *Pill*, his Stomach turning against his *Bolus*, the last of which he had thrown up, as soon as he had taken the same.

R. Pil. Rud. ʒj. Cambog. gr. xv. Tart. Vitriolat. gr. vj. Ol. Caryophil. gut. ij. Syr. Viol. q. s. M. f. Pil. iv. vel v. sumendæ manè cum usuali Regimine.

Which wrought briskly, and held somewhat longer in the Operation than the *Bole* ; but the Day following, finding himself a little faint, he desired he might have done with Purging, as fancying himself now out of Danger. However after a few Days Respite, I found him so well recruited, and satisfied too by his own Experience of the visible Alteration after each Purging, his Thighs being almost as small as ever, and his Legs not above one half in Compass they had been, unless about his Feet and Ankles, that he submitted, only begging I would change the Form of his Medicine, not knowing how to swallow any more Pills ; in Compliance with which, I directed this following Draught.

R. Vini albi ʒiij. Gum. Gut. i. e. Gut. Gamb. ʒʒ. Pulv. Rad. Jalapii, ʒʒ. Aq. Mirabilis, Syr. de Spina Cerv. a ʒʒ. M. f. Haustus, cum Custodia debita sumendus, usuali Regimine observato.

This

This Draught operated also nine or ten Times, with as great Advantage as the rest, so that we had little Occasion for farther Evacuation this Way, giving only two more at four or five Days Distance, still humouring his Palate by changing the Form of his Medicine, yet answering the same Intention: The last directed being the Powder and Draught following.

R. Gut. Gamb. gr. xij. Pulv. Jalapii, ʒj. Tart. Vitriolat. gr. iv. Pulv. ZZ^{ris} gr. vj. M. f. Pulvis, sumendus in Cochleari Mixturæ seq^{tis}. reliquum superbibendo.

R. Aq. Cinnamom. Hord. ʒiʒ. Absynth. mag. C. ʒʒ. Sacchar. albi parum M. f. Haustus.

Which wrought like the rest plentifully and speedily, and so entirely carried off the superfluous Remains of the watery Humour, as to render the Repetition unnecessary: His Legs, which, a little before, I thought would have stood in Need of laced Stockings, and which, a few Weeks past, appeared like so much Dough, burying, as it were, all my Fingers in the Impression, being cold, and scarce sensible to the Touch, having now regain'd in great Measure their native Heat, and usual Dimension, as in the Time of Health. His Face also, which before look'd bloated with his Cough, and his Countenance, like that of one half strangled, beginning to put on a much wholsomer and more lively Complexion; his Appetite strong, and his Digestion good; which before, like that of those miserable People, who subsist upon the flashy Recruit of *Spirituuous Liquors*, was formerly fatiated by the Sight only of Victuals.

Nor let it be thought that this Recovery was brought about by *Purging* only, because we have mentioned no other Remedies; for on the intermediate Days, he was kept strictly to the following *Chalybeat Electuary* and *Tincture*, in order to strengthen his Stomach, contract the muscular Fibres, and give, as it were, new Life and Vigour to all Parts, which had doubtless a great Share in his Recovery, and without which we had certainly miss'd our Aim.

R_x. Conf. Absynth. rom. Cochleariæ hortens. ā. ℥j. Chalybis cum Sulph. pp. Pulv. Rad. Ari, C. ā ℥iij. Spec. Diamb. f. o. ℥j. Syr. E. Conditur. ZZ^{ris}. q. f. ut f. Elect. de quo Sumat. ad Quant. N. M. Mane Hora X^a & V^a. Pom. cum Cocchl. v. vel vi. Tincturæ seq^{uis}. superhaustis.

R_x. Summit. Absinth. rom. ℥℔. Cort. Aurant. exter. Siccāt. ℥ij. rad. Gentian. Sem. Coriandr. Cardamom. ā. ℥j. infunde in aq. F. q. f. pro Colaturæ ℥xij. cui adde aq. Absinth. mag. C. ℥iv. & f. Tinctura ad usum supra ordinatum.

This, and his *Oxymel Mixture* at Night being continued most Part of the Time.

His Diet and whole *Regimen* was the same with that prescribed for other *Hydropics*, composed of dry Foods or Meat well dressed, so soon as he could eat any; his Breakfast and Supper dry Bread, or Biscuit; and in Regard of his Habit or Custom of drinking strong Liquors, he had half a Pint of strong Wine allow'd him daily, and sometimes more; besides his *Tincture*, which for the same Consideration was made warmer than usual.

Lastly, for preventing of Relapse, I directed a *Decoctum Ligni Guajaci*, half a Pint to be drank
twice

twice a Day, after leaving off his *stomachic Tincture*, and that if he found any Return of his Swellings, as he might expect, if he took to his old Method, he should have Recourse to the following *Diet*, and purge once a Week with two Ounces or three of the *Tinctura sacra*.

With these Instructions he went down into the Country to see his Friends, and there, betaking himself to a Course of Life, requiring more Exercise and less Drinking, he made me a Visit the Year after, appearing strong and hail as ever, and with a sanguine or ruddy Complexion, assuring me, he had observed my Directions, and drank several Gallons of the Drink, which was the following.

R. Rad. Ind. nostr. Cort. Median. Sambuc. Rad. Enul. Camp. ā. ℥ij. Raphan. rustic. ℥j. Summit. Genistæ Fol. Cochlear. Hort. ā. Mij. Absinth. rom. Mj. Bacc. Juniper. Sem. Dauci Sina-pios, ā. ℥j. incisa ac contusa f. Sacculus pro quatuor Congiis Cerevisiæ, cujus finitâ fermentatione bibat loco potus ordinarii.

We come now to another of the *watery Tumours*, namely the *Hydrocele*, which will introduce our Discourse of *Herniæ*, among which, by some, this is often numbred; altho' by Reason of its Affinity to the other watery Tumours, and in Regard it is oftentimes attendant upon the last mention'd, as also upon the *Ascites*, formerly taken Notice of, requiring the same *Regimen* in all Respects, as an Effect of those drop-sical Swellings, we have placed it immediately under the foregoing.

Indeed, where the Body is thus deluged, especially the *Abdomen*, no Wonder the *Scrotum*, like a Vessel placed under a Cistern of Water, always

always leaking, should, by its Situation, receive the dripping *Serum* from the Cavity above it, and retain the same as in a Bottle, to which it is not unfitly resembled, when it happens to be distended to the like Dimensions.

Hydrocele. By the Name *Hydrocele*, we commonly understand a dropsical or watery Tumour of the Scrotum, by some termed *Hernia aquosa*, or a watery Rupture, which I think less proper, and therefore I should choose rather to give it that of *Anasarca*, vel *Hydrops Scroti*.

It is known by its white transparent or shining Colour, pitting like the other in anasarcaous Swelling, and in which the Water, upon shaking the Part, is often perceived to fluctuate.

The Cause. The Cause of this Disease, when complicate therewith, is the same as of *Anasarca* and *Ascites*, being as aforesaid very commonly the Produce of this last, falling down from above, and admitting the like *Prognostic*; but when single, and alone, as is sometimes found in Infants, it ariseth from some Compression or Contusion of the Parts, by which the serous Humour ousting forth the ruptur'd Vessel, and detain'd by the Membranes, particularly that called *Dartos*, occasions the Tumour.

The Cure. In the Cure the same general Method is to be taken, as was observed for the *Hydrocephalus*; by some warm and powerful Discutient to set open the Pores, and give a breathing to the watery Humours therein contain'd, which being effected, one more restraining may be necessary, to strengthen and corrugate the relaxed Bag, and shut up the Mouths of the weeping Vessels.

But if the Disease be too powerful to be this Way overcome, the *Scrotum* may be scarified, as observed also in that Tumour.

Some

Some Practitioners draw a *Flammula*, or Skein of Silk, like a *Seton*, in the depending Part of the *Scrotum*, by which the Serofities are drained off; others more rationally apply a *Caustic*, and discharge them by the *Eschar*, but these, especially the former, are liable to *Gangrene*, by reason of the languid Heat; and the putrid *Serum* continually dripping through, hinders the Digestion of the Wound or Ulcer: Upon which Considerations, others prefer the Puncture in several Places to let out the Water, and after a good stiptic Fomentation or *Cataplasm* to strengthen and prevent Relapse.

But if the Dropsy of this Part is accompanied with an *Anasarca* of the rest, or with *Ascites*, wherein the *Penis* is usually affected, and a *Chry-staline* appears upon its *Præpuce*, as fell out in the History foregoing; 'tis then but seldom to the Purpose that we empty the lesser Vessel set under, whilst the Cystern over-flows above, and runs thereinto. For he, who pretends thereby at all Times, to cure this Kind of Dropsy of the Cod, is little wiser than one, who should attempt to let out all the Water of a Rivulet through a Trench cut for that Purpose, whilst the same is constantly supplied by an inexhaustible Spring above.

In these Cases then, the Dropsy of the Belly must be regarded, and the accumulated Waters thence also emptied by proper *Hydragogues*, or *Diuretics*, as shall seem suitable to the Physician's Judgment, and the Tone of the Blood confirmed, the Fibres also so strengthened, that a farther or future Supply may be cut off.

I said either by *Cathartics*, or *Diuretics*; there ^{Some Drop-} being some best emptied by the former, whilst ^{sies best} others, ^{cured by}

Cathartics, others, who cannot suffer so great a Shock, are to be attempted by the latter.
others by Diuretics.

For Instance; where the Bowels by the putrid *Serum* long stagnating round the same, at Length are corrupted, or the Liver *Schirrous*; or where the Patient is of advanced Years, or by long and *chronical* Sickness reduced, his Heat and Appetite destroyed, and his Spirits not so much eclipsed, as absolutely exhausted, the more you purge, especially with the strong *Cathartics* usually administered by Quacks at these Times; the more you will aggravate the Case, the more you will loosen the *Compages* of the Blood, and hasten the sick Man's Destruction. In these Cases, *Diuretics*, with some corroborative *Stomachics* intervening, are, what principally you must rely on: A Form of which I shall give you presently; these, I say, we must have Recourse to in such Cases, as exciting the least Disturbance in their Operation.

But where the Tone of the *Viscera* is more firm, and not yet injured by the stagnant Waters, but some broken *Lymphatic* has furnish'd an Inundation, or the Blood it self is prone to run out into a serous *Illuvies*; *Diuretics*, some of them at least given at these Times, will farther loosen the *Compages*, and by their Salts put the same into a greater Fusion or *Colliquation*: When some brisk *Cathartic* is now indicated to empty speedily, and after the *Bitters*, and *Chalybeats*, as before, to strengthen the Tone of the Blood, and restore due Tensity to the Fibres.

Observe, that in all Diseases of this Part, the *Scrotum*, whether occasioned by Water or other Humour, by a fleshy Substance, or any Part preternaturally falling down from above, the same

same must be supported with a suitable Bag-Truss, which will not only secure the Applications, but by taking off the swagging Weight of the Part, render the Patient much easier in his going about.

An elderly Person of a full Habit, long subject to an *Asthma*, grew at Length *Hydropical*, and seemed likely by the Increase of his Bulk round the Waist of falling into an *Ascites*, the Water emptying it self from above, having filled the *Scrotum* to a great Bigness; the Skin thereof being thereby put upon the utmost Tention, and rendring the Tumour very transparent, the *Penis* also buried by the Stretch, that nothing more than the Extremity of the *Prepuce* was discoverable.

HIST.
xxviii.

Which Case, as it was circumstantiated, I undertook only to palliate, after the following Manner:

Finding him through Age, and Imbecillity otherwise, incapable of Evacuation by any *Cathartic*, the Disease seeming to arise from the Defect of natural Heat, with the Poorness of the Blood it self, which must have been farther broke and weaken'd by such Medicines; I essayed therefore all I could to derive the serous Extravasation by the Passages of the Kidneys, at the same Time warming and invigorating the Parts, thus:

℞. Summit. Absinth. rom. ℥ss. Flor. Anthor. Sem. Sinapios, Baccar. Juniper. ā. ℥ij. Rad. Galang. Sem. Cardamom. min. ā. ʒj. Cinerum Genistæ ℥ij. infunde frigide per 24 Horas, in Vini Rhenani ℔ij.

℞. Lixivii superscript. Filtrati, ℥ij. aq. Absinth. mag. C. ℥ss. Syr. Chalyb. ℥ij. M. f. Haustus

Haustus mane hora X^a. & V^a. Pom. quotidie sumendus.

And betwixt Whiles, for the farther promoting a free Discharge by Urine, four or five Spoonfuls of the following Mixture.

R. Aq. Fœnicul. Petrosel. ā. ℥iv. Raphani C. ℥ij. Aceti Scyllit. Syr. de 5. Rad. ā. ℥j. M.

Every third Morning, he took the following Draught, forbearing other Medicines at these Times, not so much with a View to his being purged thereby, as to fortify his Stomach, and promote the due Digestion of his Aliments: So that the chylous Juice being rightly assimilated, the Encrease of the pituitous Humour stuffing up the *Vesiculæ* of the Lungs, as well as of the whole Habit in general, might be cut off and prevented.

R. Tinct. Sacræ cum dupl. Spec. Extr. ℥ij. Aq. Absinth. M. C. ℥ß. M. f. Haustus.

At Night when he lay down, he swallowed two Spoonfuls of this expectorating Mixture.

R. Aq. Cinnamom. Hord. ℥ij. Mirabil. Oxy-mel. Scyllit. ā. ℥j. M.

Whilst this Method was prosecuting internally, I was at the same Time fomenting the tumefied *Scrotum*, with a strong Decoction *ex Fol. Absinth. Abrotan. Rorismar. Pulegii, Lauri, cum Flor. Chamomel. Sambuc. Bac. Junip. & Sem. Cymin.* thickning one half of the Colature with *Farina Fabar.* and applying it as a Pultis after the Use of the Fomentation, which was kept up by a large Bag-Truss: But perceiving

little Advantage gained hereby, the *Serum* continuing dripping from above as fast as we could discuss, when I came to examine the outer Teguments, I found them much less thickned by the *Anasarca*, or watery Humour usually accompanying the same, and giving Rise to those doughy Impressions, but rather tense, renitent and shining, as in the true *Ascites*; wherefore instead of scarifying, having provided a *Trochet* for the Purpose, I thrust the same into a depending Part, on one Side of the Seam, and drawing forth the Piercer, discharged a large Quantity of *Serum*, till the *Cannula* being choak'd by the Folds of the *Dartos*, no more would issue forth. Upon which extracting the same, I perforated the other Side, and after Fomenting, dressing up with a Digestive to the Puncture, and the *Cataplasm*, as before, leaving out some of the Discutients, and adding Restringents in their Place, preparing the Decoction likewise with the Smith's Water, and red Wine in the Room of the common Water, in a Day or two, the *Scrotum* seem'd to corrugate, or purse up, tho' still some of the same Liquor was observed by the Fingers to fluctuate therein; yet was I not without some Hopes of gaining my Ends, and dissipating the Remains, observing him so much mended in his Habit, his Belly almost reduced, his Breath much easier, his Urine better colour'd, and made in larger Quantity, his Appetite also much greater than for some Months past: But nevertheless, in about a Fortnight's Time, the *Scrotum* was filled again, and appear'd almost as tense as formerly.

Wherefore, to prevent any Return of this Water into the Bag, I applied a strong Caustic on each Side, near the Parts I had before pierced, making an *Eschar* of the Compass of a Shilling; which

which is the surest and safest Method of Proceeding, as less liable to *Gangrene*. And after a Separation of the *Eschar*, whilst the Ulcers were carefully dressed up with a good warm Digestive, *ex Linim. Arcæi cum Ol. Terebinth.* the Waters were entirely drain'd off, in about a Fortnight's Time, and the same were admitted to heal up; the Bag contracting to its former Dimensions, the Supply also being cut off, by new Life and Vigour, as it were, imparted to the Mass of Blood, he has now, after several Years past, remained, even beyond my own Expectation, free from Relapse.

Of the HYDROPS TESTIS.

*Hydrops
Testis, with
its Signs and
Cure.*

There is yet another watery Tumour, tho' not immediately in the same Place with the former, yet encompass'd by the same outward Teguments or Cloathing, I mean the *Hydrops Testis*, or Dropsy of the Stone, which, if the serous Contents were derived by the *Process*, or Productions of the *Peritonæum*, as in the *Omental*, and *Intestinal*, might more properly be termed *Hydrocele vel Hernia aquosa*, than the other we named *Hydrops Scroti*.

But this Disease is found frequently to take its Rise from some Contusion, or Compression of the *Testis* it self, whilst the *Process* is unconcerned.

The admirable Artifice of Nature in the Fabric and Texture of this Part, less heeded, will be found upon a nice Enquiry, to surmount that of many others; nor will it appear strange, if we consider the Excellency and Nobility of the Use thereof, *viz.* the Propagation of the *Species*.

SECT. III. Of Hydrops Testis.

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Its Body, by some of our modern Anatomists, has been not unfitly compared to a Ball of Thread or Silk wound up together close: The *Epididimis*, which is but a small Appendage, I once my self unravel'd to above two Yards in Length, and yet I am satisfied, great Part was broken off: To how much greater then must the whole Body of the *Testis* be extended, if carefully drawn out to its utmost Longitude. *Bellini* says, the complicated Artery of the human *Testis*, is three hundred Ells long: *De Graaf* and *Tauvry*, that the *Epididimis* alone measures five Ells: No Wonder surely, that a Stop should then be met with oftentimes of the circulating Fluid, by some outward Accident as well as internal Disorders; and that Tumours should thence emerge; altho' the Malady now before us, seems rather owing to the Breach of some *Lymphatic*, or to a serous Humour effused by the Arteries of the investing Membrane of the *Testis*, which gradually increasing, distends the *Vaginalis*, or outward proper *Capsula*, to such Magnitude at some Times, that some Pints of Liquor have been thence discharged.

The *Hydrops Testis* is distinguished from the same in the *Scrotum*, in that it lies commonly on one Side, unless it happen, that both *Testes* are affected, a Case uncommon: There is also more Pain from the Tention of the tender Part of the *Testis* in the first, than from the Stretch of the *Dartos*, and outer Skin of the *Scrotum* in the last. The Weight seems greater and more oppressive to the Sick, and the Fluctuation is apprehended deeper by the Surgeon: Nor is the Surface so *diaphanous*, the Water lying more remote.

Again, in the *Hydrops Scrotalis*, there is commonly an *Ascites* of the *Abdomen*, at least an *A-*

anasarca on the Thighs and Legs: Whereas, in a Dropsy of the Stone, which is *protopathic*, or a primary and original Disease of this Part only, there are not such Tumours of the other Parts.

Farthermore, it is distinguished from the *Sarcocoele*, or fleshy Rupture, I think improperly so called, in this, of being less solid to the Touch, also less ponderous in the Balance of the Hand, supporting the same underneath, but more pellucid or transparent; besides the Pressure of the Fingers on each Side, will discover a fleshy Substance from a Liquor shut in, however renitent; which, if less so, or not too much distended thereby, may be observed to undulate, or if more so, is discoverable by its Transparency, in Order to which, a lighted Candle is held on the Side opposite to the Eye, in a dark Room: But this Experiment I look upon as less certain; for so many Teguments intervening, the Reflection will be much obscured thereby; besides, the Contents themselves are not always pellucid, or being sometimes mixed with a brownish or darker Serum, which will render them more *opaque*, or less transparent.

Farther, it is differenced from the *Hernia ventosa* so called, in that the latter is sometimes lesser, and at others, bigger, having little Weight, but light as the imprisoned Contents, and attended usually, unless the Membranes are much inflated, and the Tention great, from whence the same ariseth, with less Pain.

Lastly, you will know it from the other *Hernia*, by the Clearness of the *Processus*, or Production of the *Peritonæum*, from the *Inguen* down by the *Cremaster* Muscles, which, in the genuine or true *Hernia*, are always enlarged by the prolapsed Body; more especially to be perceived,

ceiv'd, if the Fingers are laid close down upon this Part, and the Patient, in the mean Time, either forces a Cough, or is put upon Sneezing.

We come now to the Cure of this particular Dropsy, from whence the *Prognostic* may be inferred, which is first of all to be attempted with Discutients, such as were directed for the *Hydrops Scroti*. But indeed the Tunic, which envelopes the Water, being very compact, and the Medicines having also the other Teguments to pervade, 'tis but seldom, unless in Infants, and young Children, that the Disease gives Way thereto; and if it does not, there is no Remedy, but by the Puncture, or *Paracentesis*, which is, by penetrating the common and proper Coats, and with a *Cannula*, letting out the *Serum*, after drying up the Residue, as we directed but now for the Dropsy in the Cod.

But here lies the Misfortune, that notwithstanding we have emptied the Bag of its Liquor, yet being unable to come at, and soder the leaking Vessel, as it happens to the *Ascitical* Patient, the same is liable to fill again, and require the Operation to be repeated. Upon which Account, those, who are not content with this palliative Cure, may have the Tumour open'd by a *Cauteric* on one Side, strong enough to go through, and make Way for the Discharge; and after the *Eschar* is cast off, if the Sinuosity will not unite, the same is to be dilated, digesting away the *Cystis*, whilst the Wound is treated with the greatest Judgment, as shall be discoursed hereafter. These Cases indeed requiring the utmost of our Skill, being apt to degenerate into ill-condition'd Ulcers, and oftentimes incurable *Fistulæ*: Preternatural Bodies being found

sometimes adhering to the spermatic Vessels, or to the Body of the *Testis*, no otherwise to be removed than by extracting the Stone it self, which should teach us to be very cautious how we deliver a *Prognostic* of these Tumours, or undertake the real Cure thereof.

HIST.
XXIX.

A young Infant, presently after it was born, was observed by the Nurse to have one of its *Testicles* much larger than its Fellow: Upon which they sent for me to take a View of the same; I perceived the Body of the right *Testis* as large as a Pigeon's Egg, the *Scrotum* discoloured, with a light Sugillation in the Manner of an *Echimo-sis*, whence I conjectured its Rise might happen by some Pressure, or other Hurt in the Birth, there seeming through the *Scrotum* some Fluid extravasated within the *vaginal Tunic*.

In Order to disperse the same, I directed a *Fotus* of the *Decoct. Flor. Sambuc. Chamomel. Fol. Ros. cum Flor. Balauſt. in Lacte Vaccin.* thickning some more of the same with the *Farina*, and applying it as a *Pultis*.

In the mean Time, I purged it, as the tender Age could bear, with a few Grains of the *Pulv. Rhei cum Syr. Rosar.* but the Tumour still encreasing, after some Months, when they had consulted others, some of whom had persuaded the Opening, others dissuading therefrom; they sent for me again, who, after mature Deliberation, thrust up a Spear-pointed Lancet into the *Vaginalis*, and discharged about $\frac{3}{4}$ iv. of a reddish *Serum*, like the Water of wash'd Flesh; after this, the Tumour instantly subsided, and the *Testis*, which had therein fluctuated before, appeared now of its natural Bulk and Figure.

The Puncture being dress'd up with my Digestive, I ordered a restraining *Cataplasm* of the
Fol.

Fol. Rosar. Flor. Balaust. Cort. Granat. boil'd in Claret and the Steel-water, adding a little Bit of Alum, and sprinkling some *Pulv. Boli Arm.* thereupon, supporting the same by a fine Dim-mety Belt, and a Bag as usually, with its Straps fastned to the same.

Which Method being some Days continued, the outward Tunics, with the Parts more inwardly, recovering their Tone, and no more of the Liquor effused, the Child got clear of the Accident, and never, that I could hear, relapsed.

A Person of a middle Age, and otherwise of HIST. XXX. a seemingly well constituted Habit, by a Bruise, as he supposed, from his Saddle in riding, tho' it was some Months after, complained of a Sort of gravative or heavy Pain, with a Fulness on one Side of the *Scrotum*: For Relief in which, he made his Application to several Practitioners, who had diversely treated him; some taking it for a *Hernia humoralis*, had ordered *Purgatives* and *Vomits*; others for *Wind* and *Water*, had applied *Discutients* of sundry Sorts: Others lastly, for an *intestinal Rupture* incapable of Reduction.

Thus, after two Years, despairing of Help from the *Prognostics* and Experiments of ignorant People, and contenting himself by supporting the Weight of it, with a Contrivance, none of the most artful, instead of the Bag; the Part growing still fuller and more cumbersome, a Person, who had been my Patient upon another Occasion, came along with him to me.

I perceived an oblong Tumour hanging down on one Side of the *Scrotum*, like the *Testis* of a Bull, but much larger, stretched out from the Bottom, and growing narrower at the *Processus*,

sus, which yet was high, and full up to the *Inguen* on that Side, as if the *Ileon* slipping down had given Rise thereto, and which had probably deceived those who had so mistaken it.

Upon a strict Enquiry, and pressing the *Tumour* all round, altho' the outward *Tunics* were rendred tense and renitent by the Distention, yet was it manifest, some Fluid, or extravasate Liquor was shut up therein; which, tho' I could not promise upon emptying, should not fill again, yet I made no Scruple to acquaint him, that he might be freed from his Burthen without any Danger, and with but little Pain: When calling for a large Candle, and shutting out the Light, I tried by placing it behind, to observe, if there were any Reflection through, having before by a Contrivance of Tin planish'd so inclosed it, that no Rays could scatter; but I cannot say, that I had much Assistance from the Experiment; whether by Reason of the great Bulk of the Tumour, or the *Opacity* of the Liquor it self, by its less Transparency not suited for reflecting the Light, as at other Times.

Notwithstanding this, being assured in my self, that the Contents were liquid, I offered to empty the same instantly; but he took a little longer Time to consider of it, and returning the next Day, without any Preparation of his Body, which in these Cases I think needless; I thrust up a Lancet at the Bottom, as less painful than the Piercer in the *Trochart*, till finding a Liquor issuing out by the Sides thereof, I with-drew, and passed in a *Cannula*, with a two Inch Pipe, extracting thereby $\frac{1}{2}$ lb. of a brownish *Serum*, like small Beer, at the Close, issuing out more thick and dreggy, however through the Pipe, which I gradually retracted, and pressing all
about

about, till the vaginal Tunic, or *Sacculus* containing it, was quite emptied; then taking the Pipe out, and dressing up the Puncture with my Digestive, I wrapt up the flaccid Bag with a double Flanel, express'd from hot Claret.

Many prefer the *Trochart* to the Lancet, as carrying along with it the *Cannula* at the same Time, that it makes the Perforation; besides, they object the Difficulty of passing in the Pipe, after drawing forth the Lancet, by Reason of the Tunics falling over each other, and denying so ready Admittance: But if the *Scrotum* is pressed forward from above, and kept in the same Posture, in which the Wound was made, especially if by a full-pointed Lancet, this Difficulty will be removed; but in this however, let every one use his Liberty.

The next Day, I ordered a *Fotus* prepared of a strong Decoction of the *Cort. Querc.* in Order to strengthen the relaxed Fibres, and purse up the Tunics so lately under their preternatural Dilatation; and if possible, to prevent more of the same Liquor from Extravasation. I likewise purged him once a Week, with a Spoonful of *Tinctura sacra* over Night, and half a Drachm of *Pulv. Jalapii* in the Morning, with Hopes of keeping under the serous *Illuvies*, or to divert its Course another Way.

But whoever rightly considers the Source of this Disease, from some broken *Lymphæduct*, or by Reason of the obstructed Progress of the Blood, not readily passing the meandrous Windings of the Vessels, without letting go some serous Particles, together with the Number and great Compactness of the containing Coats, particularly the outward proper one called *Tunica vaginalis*, will see little Reason to hope for much

Advantage either from *Chirurgery* or *Physic*. And thus indeed it fared with our Patient ; for altho' he seem'd perfectly free and easy the first Week or two, yet in less than three Months, he returned to me with near half the Quantity of Liquor I had before let out: Which, now upon the Shock, did palpably gurgitate. I then advised him to let it alone, only supporting it with his Bag-Truss, till it again arrived at its former Magnitude, when I would consider what could be done farther for his Cure.

At three Quarters of a Year's End, from the first opening, he came with an additional Complaint of great Pain and Weakness of his Loins, in Company with a Gentleman, a Foreigner, who, by his Discourse, I perceiv'd, had been conversant in Practice, and was lately come out of one of the Hospitals in *France*. He spoke *Latin* fluently, as well as *French*; and giving a handsome Account of the Subject, I propos'd laying on of a strong Caustic, and after the Water was emptied, to endeavour Digestion and Agglutination of the same; or else, slitting up the *Scrotum*, to tie up the *suspensory Cremaster*, with the *spermatic Vessels*, and making Ligature thereon, excise below, and take them off together with the *Testis*: But I would enterprize neither without a Consultation ; for as I could not warrant a Security from a fistulous Ulcer by the first, so neither was the *Castration* absolutely safe, considering the great Fulness of the *Inguen*, together with the *Lumbago*, which I had observ'd prognosticating ill, as well in this, as in the *Hernia carnosæ*.

After which Conference, the Patient apprehending Danger either Way, and the Success uncertain, declared, he would be once more tapt, and

and wait the Issue of a Year longer: Accordingly his Friend preferring the *Trochett*, the same was forced in; when perceiving more Pain than formerly, he drew back with a Sort of Spring, just as the Piercer was forcing through the *Vaginalis*, and refused re-entring the same, choosing rather to submit to the Lancet, which, he said was no more than letting Blood; and thrusting in that Instrument as formerly, passing instantly after my *Cannula*, we discharged such another Quantity of a somewhat clearer *Serum*, only tinged by the Blood flowing down with it from the Wound; When dressing up again, he went back with his Friend, from my House, and since that I have heard nothing from him, tho' I could not see, but that in Time he might stand in as much Need of a third Puncture, as he had of a first and second.

A Gentleman of my Acquaintance, when he had for some Years past, observed his left *Testis* gradually enlarging, without any previous Accident, that he knew of, contributing thereto; at Length communicated his Case to me, who, when I had maturely considered the same, declared it an *Hydrops Testis*; or that the Contents of the Swelling were a watery Humour lodged between its proper *Tunics*, viz. the inner *nervous*, called *Albugenea*, and the outward *membranous*, named *Elitroides*, or *Vaginalis*.

The *Tumour* was large, and, as I conjectured, could not contain less than a Quart, if not five half Pints, of the extravasate Liquor, which, having no proper Support by the *Truss*, its Weight and Tention now became very troublesome: Upon which Account, I advised him to the *Paracentesis*, and by the Encouragement I had

HIST.
XXXI.

had given him to undergo the same, he applied himself one Evening to that noted Artist, Mr. *Edward Green*, who, handling the Part, and trying it by the Candle, concluded it to be what I had represented; when immediately, without more ado, entering the *Trochart* at the Bottom, and extracting the *Piercer*, he drew forth by the *Can-nula*, near three Pints, by Computation, of a ferrous Humour, of the Colour of small Beer; and having emptied the Bag, taking out the Pipe also, he laid on a Pledgit of a *Digestive* on the Puncture, with a *Diapalma* Plaister, under a small *Bag-Truss*, and so dismiss'd him.

But whether by the Shock of the Coach he had taken to go Home, his Fear before Hand of the Operation, the Heat of the Season, when it was enterprised, or the emptying so large a Quantity of the Fluid, it so happened, that he grew faint and languid for some Time, complaining of Weakness in his Loins, a Sort of Listlessness, as we say in common, and a colical Gripping in his Bowels: For which I directed a light Infusion of the *Rad. Rhei cum Sem. Coriand. ac Sale Tart.* adding to the Colature, $\mathfrak{z}j$. of the *Syr. Ros. Solut.* but this, however gentle, would not suit his *Temperament*, so that in its Place, I substituted the *Pil. Stomach. cum Gum. cum quarta Spec. Diamb.* of which taking three or four each Night, or every other, as he found Occasion, the sharp Humours were emptied *per ἐπιήρασιν*, and his Pains wore off; but still a Languidness attending, and having, as I had Reason to believe, a great Share of *Hypochondriacism* admix'd, I prescribed a corroborative Electuary, *ex Conf. Anth. flaved. Aurant. Absinth. rom. Nuc. Mosc. Condit. Pulv. Rad. Ari & Spec. Diamb.* much after the Manner you will find
inserted

inserted for *Oedema*, to be taken the Quantity of a Nutmeg twice a Day, drinking four or five Spoonfuls of a *Chalybeat* Bitter after each Morfel, and upon them both, half a Pint of *German Spaw-Water*; the rest of the Flask he finished before Noon, reserving one half Pint for his Dinner, that he drank with a little Wine, which quickly recover'd the Tone of his Blood, giving new Life to the whole *nervous System*. Yet after this, towards the End of Summer, he lost Ground again, seeming to grow hectic, with a Cough, and profuse Sweats, for which I now directed an Electuary, with the *Conserv. Rosar.* and *testaceous Powders*, to be taken with the *Ass's Milk*; also four or five Grains of the *Pil. e Styrace*, in one single, or two small ones, with a Spoonful of Balsamic Syrup, going to Bed, which not only mitigated the Symptoms, but by lying out of Town, before the cold Weather came on, removed also these Complaints.

It may be here questioned by some, whether these Symptoms were Consequents of letting out this Liquor from the *Testis*? Which, I think, are by no Means rationally to be inferred.

His Surgeon was of Opinion, that he might, by Way of preventing the Disease returning, be purged between Whiles, with the *Gutta Gamb.*; but having, as I told you, experimented *Rhubarb*, the most mild of the Tribe of Purgatives; and found the same would not agree, the Disorder of his Bowels still increasing, I was fearful of trusting their feeble Tone with so rugged a Medicine; nor could he give him any great Expectation, that it would not fill again, whatever Remedy he made Use of.

It

It was my Advice, to farther the same Intention, that some restringent *Cataplasm* and *Fotus*, should be used immediately upon letting out the Water, like what you will find directed, to promote the corrugating or purfing up the *Scrotum* and *Dartos*, after discharging that of the *Hydrops Scrotalis*, called by the Surgeons *Hernia aquosa*; but whether they were then made Use of, I am not certain, the Surgeon telling him, it must take its Course, and that after three or four Days he might suffer it to hang down as before. But at the End of so many Months, he observ'd it filling again; yet giving little or no Disturbance, he went on, without taking any Medicine upon this Account: And truly what was there to be done, or what *Prophylætic* have we in these Cases? Where no Evacuation can be contrived to empty this little *Puddle*, any more than that of the greater *Pond* above, in the true *Ascites*, unless the *Trochart*, or a Lancet, with the *Can-nula* immediately introduced by the Apertion; for if here, as there, we purge with *Lenients*, we trifle and do nothing; if with the stronger *Hydragogues*, as the *Succus Ebuli, vel Ireos*, the *Rosines* either of *Jalap* or *Scammony*, the *Gamboge*, much more the *Elaterium*, we shall only farther break the *Texture* of the Blood, destroy its *Balsam*, now more than ever wanting to cement or soder up the leaking Vessel, and augment the Disease we pretend to remedy. The like by *Diuretic*s, fusing the same, and dissolving its *Compages*, when the serous Inundation, instead of taking to the *Renal Glandules*, will be intercepted and ouse forth, wherever they find a Passage, falling into either Cavity, and encreasing the Malady. If we attempt the Cure with *Diaphoretics*, by still farther rarifying or attenuat-

ing

ing the Mass, and quickning at the same Time the Motion of all the Fluids, we make Room even for those Particles to slip through, which perhaps had not otherwise found the Way, and so fill up the Pond faster. Lastly, he that shall set upon this Disease by *Emetics*, is little wiser, than the Surgeon, who, to hasten the Union of a broken Limb, is daily handling thereof, and shaking it about, to find, whether it is grown fast; since if *Nature* even had found some Method to agglutinate, or otherwise to stop the Holes, whence the Water fell through [and it seems indeed her Work alone, if ever it be accomplish'd] Such a Shock must be given in the working of these Medicines, as would infallibly undo the Work, and set open the Breach afresh: So that, in short, of what Kind soever the *secretory* Duct may be, whether *Lymphatic*, or other Vessel ruptur'd, that shed the Water into either of these Receptacles; we have I think no other *excretory* one to carry it off, unless the Pipe of the *Trochart*, by the *Paracentesis*; and to tap afresh, as often as they refill, till *Nature*, as at some Times, finds a Way of consolidating the uncomeatable Breach, or by some other Secret unknown to us, stops up the same.

The wicked and vile Attempts of some late Pretenders to the Cure of *Dropsies*, by the strong *Cathartics*, with the repeated *Man-slaughters*, not to say *Murthers*, thereby committed, where the *Viscera* are in a Manner rotten, and their Deaths consequently accelerated by the exhibiting thereof: These, I say, if not *living*, yet are *posthumous* Evidences of the Success attending; and if some few, as we have formerly remark'd, through a lucky Hit, or rather providential

dential Interposition, have escaped, under their *Empirical* Remedies, many Scores, in the mean Time, have been destroyed, and some of these even under the Operation, as I have found, when call'd upon to see their *Exeunt*.

Begging your Pardon for this Excursion, which I hope, will not be found useless, I am to inform you, that at the End of about twelve Months, the same *Testis* was very much increased, tho' not yet to the Magnitude as before; so that he went on six or eight Months longer; about which Time it was arrived at its former Depth as well as Circumference; and taking now the Advantage of a fitter Season, *viz. Feb. 1721.* by Appointment, Mr. *Green* met me at the Patient's House, where, after trying the Reflection of the Candle, which was discernible, tho' obscurely, through the contain'd Fluid, whilst his Son, a very judicious young Gent. also with both his Hands press'd from above, to increase the *Tention* of the circumambient *Teguments* below, and facilitate the Penetration, the Father push'd hard up at the Bottom with a *Trochet* made for the Purpose, having a smaller *Piercer* and *Cannula* than that commonly used for the Perforation of the *Abdomen* in the *Ascites*: And entring about an Inch and half, he drew out the *Piercer*, discharging more than a Quart of Liquor, the Colour as at first: The young Gentleman still pressing forward, till the whole was drained off. After this he was dress'd up, and I advis'd now also, that he would apply a warm Flanel express'd from some *Styptic* Infusion, such as that *ex Cort. Granat. Flor. Balaust. Fol. Ros. rub. in part. aq. Vin. rub. & Aq. Ferrat.* to be renewed Night and Morning, and worn in

in his Bag, of such Size as to fit always tight, and close up to the Part.

What the Issue of this second Apertion may be, I cannot say, but am inform'd, it fills again!

I did, I must own, propose to Mr. *Green* the *Castration*, as the only Remedy, in Case of its continuing to refill after this Manner; but he demurr'd against that, by Reason the *Testis* must be thereby destroyed, which is most certain; yet of what Use such a Stone was like to be, I could not comprehend, admitting it thus always swimming in a Puddle of Water, with the attending Stretch of its outer proper *Tunic*, and the Pain thereby occasion'd.

It was that Gentleman's Opinion, if Occasion should be given, to apply a large *Escharotic*, strong enough to go through all the *Coats*, by which Means, the *Cicatrix* afterwards binds down the same, as to prevent any farther Extravasation, which tho' not depriving the Patient, it is true, of the *Testis*, may possibly render it useless in its Office; and besides the Chance, whether or no the *Breach* may be now fodder'd, the Enterprize; all Things weigh'd, will be found perhaps as painful and hazardous, I am sure more tedious, than having turned out the Stone, making a Ligature on the Vessels above, and excising the same below, as you will see presently, when I come to speak next of the *Hernia carnosæ*, to which I shall now hasten, when I have first acquainted you that for my own Satisfaction, so soon as the Liquor was let out, and our Patient dress'd up, I took a Spoonful, and held it a few Minutes over the Flame of a Candle, where, being sensible, give me Leave to say, of the Heat, before any Part was evaporated, the

whole grew strait, *gelatinous*, and immediately after took the Consistence of the white of a rear poch'd Egg, but of a more obscure Colour, like what I have observed to flow from *Fistula's* in and about the Joints, or other nervous Parts, called *Synovia* by Practitioners, and which indicates plainly, whatever Vessel may, or does furnish the Supply, whether *Artery*, *Vein*, *Nerve*, or *Lymphæduct* [tho' most probably one of the two last] it is different from the common *Latex*, and truly of the *nutritious* Kind.

Of HERNIA CARNOSA.

Having thus given our Sentiments of the *Hydrops Testis*, I shall here take Notice of another Disorder incident to the same, by which, not its outward *Tunic* only, but the Body thereof is enlarged in all its Dimensions, by a fleshy Substance, or preternatural Augmentation of its Bulk : And which indeed I might have observed among the *Sarcomata*, but I rather chose to bring the Diseases of the same Part, at least, of this particular one, in View at the same Time, intending it more especially, to introduce my Account of the other *Herniæ*, whether *spurious* or *genuine*.

It is called by Authors, *Hernia carnosæ*, tho' I think as unfitly, as the *aquosa* before described : However retaining the old Name, we define it a *Flesh-like Substance*, at some Times *adnascent* to one Part of the Body of the *Testis*, as happens upon *sinuous Ulcers*, or *Fistulæ* thereof, where after some *Abscess*, or *Apothème* ill managed, its *Tunics* being destroyed, the *nutritious Juices* are shed round about, and these *Excrescences* are produced; or as already described of a *Glandulous*, the same Kind with the rest,

rest, by which, from some Accident of Contusion, &c. its vascular Compages is amplified and dilated, and the Stone thereby enlarged through its whole Con-
texture.

As to the Marks of Distinction between this, and others going under the Denomination of *Herniæ*; the nearest, I think, in Likeness hereunto, is that called *Humoralis*, a common Attendant on the *Gonorrhœa* suppress'd, or untimely restrain'd; of which see more in our *Treatise* of the *Venerical Disease*: But its greater Weight and Hardness, together with the more gradual Increase, also attending those who never had to do with Women, will, to a heedful Observer, be a sufficient Direction, that it is not of that Sort, as may also the Freedom of the *inguinal Process* from any preternatural Fulness, or, being handled, discovering no prolapsed or interposing Body, inform him that it is no true *Hernia*, or any of those we shall come presently to describe.

The over-grown, and equally enlarged *Testis*, may probably enough derive its Original from the flacker or more retarded Motion of the Blood, or by the same moving faster through the Artery, than taken up or returned by the Vein, whence the Particles left at the Pores in the Extremities being carnified, after they have diffused themselves round about, must necessarily increase the Bulk of the Stone: And if we consider the Frame thereof, as I have remark'd in discoursing on the *Hydrops Testis*, together with the *meandrous* Windings of its Vessels, we might wonder there should not oftner, by Reason of the Fluid stop'd therein, arise either this Disease, or an *Abscess* almost as bad; but having said more upon this Head, in our Discourse
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upon the *Sarcoma*, to which this is allied, I shall deliver the subsequent *Prognostic*, and hasten to the Cure.

In giving then our Judgment thereof, and before we enterprize the same, it behoveth us diligently to weigh all attending Circumstances.

Thus, if the Stone be unequally hard, has painful Dartings, with turgid Veins, of a livid Complexion, we may suspect, by such its schirrous Disposition, a farther Tendency to a more malign and cancerous Quality, and forbear meddling at all therewith: Nay, altho' the Stone be not so very hard or painful of it self, yet if there be great Complaint of the Back, with Shootings through the Process, or if this last be affected, or concerned therein, these will discourage, in some Measure, the Operation.

Again, in a true *Schirrus* of this Part, or which is perfectly indolent, as well as hard, not increasing or incommoding the Patient [as I have seen some of them] there may be no Necessity for the Operation, nor indeed any other Chirurgery.

But lastly, if the tumefied *Testis* appear of a mild Disposition, no ways complicated, as above, but chiefly burthensome by its Weight, and hindring the Sick thereby from going about, or to prosecute his Affairs, and the Process at the same Time so disengaged, as to admit thereof, the Cure is hopeful by Excision.

In Order to which, having tried the Force of Discutients, either in the Form of *Cataplasm*, *Emplaster*, or *Fomentation* for some Time ineffectually, as there is not much Likelyhood they should be other, and the Disease still increasing, you must proceed to the Operation, I mean, Extraction of the *Testis*, called *Castration*.

†

Which

Which is done, [the necessary *Apparatus* pro-^{The Cure}
 vided, and the Patient placed in a fit Posture, ^{by Castra-}
 rather sitting forwards, and leaning back in his ^{tion.}
 Chair, than lying along] by opening the *Scro-*
tum first of all with a Lancet, or the Point of
 an Incision-Knife, on the same Side with the
 Stone; after clapping in your *Probe Scissars*, and
 cutting up towards the Ring of the *Processus*:
 When having made sufficient Way with your
 Fingers, you are presently to divide the adhering
 Fibres betwixt the *Tunica vaginalis* and the *Dar-*
tos, till having entirely freed the same all round,
 you turn out the *Testis* with its *suspensory Cre-*
master and *spermatic Vessels*, in like Manner freed
 from any Adhesion, which you are now to tie
 up, by making three or four Circumvolutions
 of Silk or Thread [several being waxed toge-
 ther for that Purpose] and fastning a secure Knot,
 as is practised in parting the *Fœtus* from its *Pla-*
centa, upon the *umbilical Vessels*, dividing here
 also, as there, a Finger or two's Breadth on this
 Side of the *Ligature*, and taking off the Stone,
 leave the said *Ligature* hanging out of the
 Wound; which, after a few Days, whilst the
 same is *digesting*, casts off, the Wound soon af-
 ter agglutinating, or healing up again.

In the mean Time, how easy soever the Ope-
 ration is, yet must you expect to encounter a
Symptomatic Fever, if you have none of those
 more fatal Symptoms attending some others; such
 I mean as *Convulsion*, *Gangrene*, or *Mortification*.
 His Body must be prepared by *Bleeding* and le-
 nient *Purgation* beforehand, also gentle *Ano-*
dynes, afterwards Clysters upon Occasion, con-
 temperating *Juleps* and *Emulsions*, to abate the
 febrile Heat, and take off the Inquietude, not
 forgetting the most slender Diet for some Days;

Whilst proper *Fomentations* to cherish these *nervous* Parts, and good *Digestives* to the Wound, are carefully to be directed during the Cure.

If the diseased *Testis* be very large, and the Incision consequently so in the *Scrotum*, I have sometimes found it needful to make two or three Sutures in the empty Bag, which hath hastned the Union, and by the Help of a good styptic *Fotus* at the Conclusion, or after the Wound is well *digested*, and the Ligature cast off, promoted the corrugating or pursing of the same.

The *Digestive* I have used my self at these Times, has been the *Terebinth. veneta cum Ovi Vitello*, spread on Lint, both in the Form of Dossils and of Pledgits, and after dip'd lightly in the *Linim. Arcei* melted down with a little *Bals. Terebinth.*

HIST.
xxxii.

A Weaver, near *Spittle-Fields*, of a middle Age, and good Habit of Body, having, from a former Accident, been many Years indisposed with a weighty Testicle, which still growing larger, and giving him great Uneasiness in the Time of his working, made Application to a Surgeon of his Acquaintance, who recommended him to take my Opinion of the same.

Having duly consider'd, I gave it, that the *Tumour* was a *Hernia carnosæ*, as the same is vulgarly called, or the *Testis* equally enlarged in all its Dimensions, by some nutritious Juice, first of all let go by the Vessels, and after gradually supplied from the same, growing up to its present State: And, in all Likelyhood, might still improve to a much greater, if the Stone it self, together with its Vessels, were not removed: For which Reason, considering so likely a Subject as he was for the same; a sober, temperate Man, of good Habit of Body, the Process free, and no Complaint

plaint of the Back, or indeed any where else; I declared the said Extraction his only Remedy, giving him great Encouragement to undergo the fame, ſince it was manifeſt, no other Method could avail him.

Upon his Compliance a few Days after, when his Body had been prepared by *Bleeding*, and an *emollient Glyſter* over Night, his Friends recommending Mr. *Jacob Babington*, a plain old Gentleman, but an artful Practicer, we met; and placing our Patient for the Work, whiſt he, on one Side, pinched up the *Scrotum* with his Fingers, I entred the common *Teguments* with the Point of my Inciſion-Knife, and clapping the Shank of my Sciffars into the Wound, which was near the Bottom, cut up to the *Inguen*, when immediately Mr. *Babington* thruſting in his Fingers on each Side, tore aſunder the adhering Fibres all round, and brought out the *Teſtis*, which freeing in like Manner upwards, where there was any Adheſion in the Way, with half a Dozen Needlefuls of Silk waxed together, I took a Couple of Turns cloſe round, ſtreightening the ſame, as the Midwife does in making the common Ligature on the Navel-string of the *Fœtus* immediately after its Birth: When tying a ſecure Knot, I divided the *Cremaſter* with its incloſed Veſſels and ſuſpending *Teſtis*, weighing eleven Ounces. This done, I ſtitched up the empty Bag, and left the Ends of the Ligature hanging out of the Wound, having in the Operation loſt no more Blood than might ſeem neceſſary for relieving the ſame, and preventing of the Fluxion.

Our firſt Dreſſings were Doſſils of dry Lint, over which a Pad of Tow, dip'd in *Oxycrate*, and ſprinkled with *Farina*, without any other than

the T. Bandage, which sufficed to secure the same: He was then put to Bed with a Draught of a Pearl *Julep*, and the same Night took an *Anodyne ex aq. Lact. ʒiʒ. aq. Pæon. C. ʒij. Syr. de Meconio, ʒj. M.* notwithstanding which, the next Day we found him feverish, having had a restless Night, with some intercurring *Rigours*, from those very tender and sensible nervous Parts compress'd by the Ligature; also great Thirst, and Soariness up that Side of his Belly, much increased by a slight Cough, he apprehended he had got by Cold in the Operation.

Upon which Account, it was agreed to take away half a Score Ounces of Blood from his Arm, and for his feverish Heat and Thirst to allow him an Emulsion *ex Sem. iv. fr. maj. cum Amygd. d. excort. in Aq. Hord.* for his Cough the following *Linctus* and pectoral *Aposema*.

R. Ol. Amygd. d. ʒij. sperm. Ceti. ʒij. incorporentur simul in Mortario marmoreo, & addendo Syr. Dialth. & Capil. Ven. ā. ʒj. f. Linctus, de quo e fundo Vasculi sumat prælargum Cochlear subinde vel Tussi infestante superbibendo Haustulum repositum Decocti sequis.

R. Decocti Pectoralis depurati ʒiʒ. Tyr. Bals. Tolut. ʒj. M. f. Apostema.

The *Liniment* here following was likewise directed to embrocate his Belly.

R. Ol. Lumbric. Ungt. Dialth. ā. ʒʒ. Ol. Anis. ʒj. M. f. Litus, quocum manu calida, leniusculè foveatur Regio Hypogastrica Mane & Vespri, Pannum laneum mollem superponendo.

The third Day we met again, not opening the Wound the Day before; when perceiving the inner-

innermost Doffil to adhere, we let the same lie still, contenting ourselves with fomenting the Parts all round with a Decoction of the common warm discutient Plants, and a little camphorated Spirit of Wine; after which we dress'd up with other Doffils arm'd with *Liniment*, and dip'd in some more of the same melted down with a little *Balsam. Terebinth.* with a large Pledgit of the *Liniment* by it self, and the Bandage as before. He still continued hot and feverish, but without *Rigours*, and being costive, a Clyster of the common Decoction was injected, with ζj of *Elect. lenitiv.* dissolved therein, which procured him a Stool soon after: His *Emulsion* was yet continued, with his *Linctus* and *pectoral Apofeme*, his Diet consisting of small Broaths and Grewels. On the fourth Day, the Dressings were renewed as before, the Wound appearing digested, as well above about the *Ligature*, as below upon the *Scrotum*, unless that some thick Sloughs, in the upper Part, somewhat retarded the Work; upon which I sprinkled the *Præcipit. rub.* which, in few Days more, removed the same.

At the Fortnight's End, or thereabouts, the *Ligature* casting off, the Wound incarned by the Digestive used all along; that in the *Scrotum* agglutinating also, and the Bag so pursed up, as to stick close to the other Side, at three Week's End he got abroad, and soon after into his *Loom*, prosecuting his Business, without Let or Inconvenience; and after, performing more with one, than he had done before with both his *Witnesses*, his Wife bearing him a Child, within the Year, after the Operation.

Having given you this Instance of a *Semi Eunuchus*, if I may so term him, or a single *Castration*,

tion, I could entertain you with a trage-comical Example of a double one, happening in the same Neighbourhood, and about the same Time.

HIST.
xxxiii.

A poor *Hypochondriac*, or *Enthusiast* rather, whether on a Suspicion of his Wife's Incontinency, and thereby to discover the Truth, in Case she brought him any more Children, which was the common Rumour, or to punish his own, I never could rightly learn; but so it fell out, that in a Fit of Melancholy, having shut himself up in his Chamber, without any *Apparatus*, he made shorter Work, with one Stroak of his Razor, taking both *Testes* and *Scrotum* away together: Upon which so great Effusion of Blood from the Arteries ran through the Floor, as made the first Discovery; the People below hastening up to him, perceiv'd him in a Manner expiring by the Loss of Blood, and calling presently for Help, proper *Stiptics* being applied, he was rescued from the most imminent Danger; and the Wound, after *Digestion*, being brought into a healing Condition; the poor Man, ashamed of his late Enterprize, not daring to stir out of the House, remov'd his Quarters by Night, and was never after heard of.

HIST.
xxxiv.

A Person, who had used the Seas almost all his Life-time, and led a very loose Life, when after several Years labouring under a fistulous Ulcer on the *Testis*, the Result, as I suspected, of some former *Hernia humoralis* neglected, or through Ignorance treated with *Suppuratives*, by which an *Abscess* ensuing, and the Matter pent in by Tents, had increased the *Sinuosity*, and made Way for a *Fungus* to grow up therein, by which the whole Body of the *Testis* was in a Manner surrounded and increased to a great Magnitude, and at last burst out of the Scrotum. Upon

Upon Search, I discover'd several *Sinus's*, some more superficial, others deeper and more profound; none of which had been dilated as they ought, but the Matter discharged as the external Orifice hapned by its Situation to favour the same.

He was, at that Time, under some Pretender's Cure, who had surrounded the Body of the *Testis* with a mercurial Emplaster, promising thereby to dissolve the same, whilst the Corruption was to be drawn out by his Balsam.

I assured him, there was no Reliance upon such Promises, the Tumour being a true *Sarcoma*, and incapable of Resolution, so that, to me it was very plain, nothing less than the Extraction of the *Testis* could free him from so stubborn a Malady: And in which, I told him, he might meet with some Difficulty, his Constitution being now broken, and he in a declining Age, a Cough and hectical Disorder having already seized him, and threatening a *Symptomatic Phthisis*: so that declining meddling my self, I persuaded him to take the Opinion of Mr. Bernard, from whom not meeting with more Encouragement, he went from him to others; at Length putting himself into the Hands of Mr. Joseph Bateman, at that Time Surgeon to St. Thomas's Hospital, he performed the Operation of Excision, but had the Misfortune to loose his Patient, who died soon after the Operation.

Whilst I was inserting the foregoing Cases, I was called on by a Surgeon in that Neighbourhood, to take a View of a large *Testis*, of a poor old French Man in *Spittlefields*; it had been of several Weeks standing, exceeding the Dimensions of a common Foot-Ball, or Bladder blown up, inclosed in its Leather-Case: Upon Enquiry,

I found the whole Tumour made up of the Body of the left *Testis*, the other being free and unconcern'd, but by the great Tention, thrust close to the *Scrotum* on the Side opposite, where I could plainly feel it slip about. The *Processus* at the Top, or the *inguinal* Region, felt also clear; so that I deliver'd my Opinion, *negatively*, first of all, that it was none of the genuine or true *Herniæ*; then feeling more strictly on all Sides of the Tumour, I could plainly perceive an unequal Hardness, like that of a fleshy Substance in some Parts, whilst, in others, there was a palpable Recedence upon Pressure, with a Renitency immediately, as from some Fluid therein also contain'd, so that the Tumour might be deemed compounded, or complicate of both.

He had an Apprehension, that a Blow some Time before received about the *Pubes*, rather than on the Part affected, had given Rise thereto; yet whether so, or from some peculiar Distemperature in the Part, favouring its Production, was to me uncertain. But be that as it might, it seem'd very plain, by its present Appearance, together with that of his emaciated and worn out Habit, that there was no good to be done; and therefore I advis'd the Surgeon, in Regard to his own Credit, that he would not open the Tumour, but content himself with a good resolute *Fotus* and *Cataplasma*, that might keep up the Heat of the Part, and farther the Dissipation of the contained Humours.

That, which was farther remarkable in this Case, was, that about the same Time, or soon after the Appearance of this Tumour on the Stone below, he had another very large congested one also, thrusting forth on the same Side above, upon his Neck, reaching from a little below

low the Lobe of the left Ear, down towards the *Clavicle*, appearing like a *Scrophula*, or huge *Wenn*, and seemingly made up of the like Contents with that of the *Testis*, viz. partly *humoural*, and partly *sarcomatous*.

Having thus given my Sentiments of the Case, I came away, desiring the Surgeon to give me Notice of his Death, when the same should happen, in Order to dissect the Part for my farther Satisfaction; still enquiring between Whiles how Matters proceeded; when after a few Days, I understood, that both the Tumours advanced considerably in their Magnitude: Insomuch, that the *Testis* exceeded that of a Man's Head, and might reasonably be supposed of half a Dozen Pound Weight. At Length, a Mortification appearing in the lower Part, of the Compass of a half Crown; a bloody *Serum* quickly after burst through in a large Quantity, and continued gleeing several Days, till his Strength being quite exhausted, he sunk under a *Marasmus*, keeping his Senses to the last Minutes.

The Day after his Death, I went in Company with his Surgeon, and found, notwithstanding the large Profusion of the serous Humour through the rotten Ulcer, the *Testis* was still as big as a Child's Head, or near the Dimensions it was of when I first view'd it.

I then gave Direction for the *Scrotum* to be open'd on the right or sound Side, where we turned out the shrivel'd and almost wasted *Testis*, together with its *Cremaster*, free and clear up to the Rings in the *Processus*. After which we cut up the Body of the diseased Stone, and out of several large Cells, or Cavities, there flow'd forth more of the same Liquor, *instar Loturæ Carnium*: What remain'd being wholly *vesiculous*,
like

like the *Parenchyma* of the *Spleen*, of a Sponge like Substance; or, as I then compar'd it, like a large Pomegranat, *Cellular*, with the *Parietes* composed of rotten Membranes, and the Honeycomb like *Vesicles*, stuffed with a putrid *Sanies*: Which sufficiently justified our Prognostic, as well as Conduct in the Proceeding, leaving it rather to Nature, thus to vent it self at long Run, than either by *Caustic*, or *Incision*, making an Ulcer out of our Power to heal up again, or letting out only this bloody *Serum*, and leaving the large fleshy Substance yet behind; incurring the Censure, that we had mistaken his Case, and by such Proceeding hastned the poor Man's Death, if they had not given out, that we had absolutely kill'd him.

The Tumour on his Neck, soon after his Decease, was somewhat subsided, but still continued about the Bigness of the rotten *Testis*, and seemed to be made up, by our handling thereof [for we did not open it] of the like spongy Materials, and extravasated Humour, with those of the said Part.

In the *fungous* Excreescence upon the *Testis*, where the same is not overgrown, you are to make Way thereto, which is then to be consumed by *Escharotics*, or the *potential* Caution, in like Manner as in other *Sarcomata* has been directed. But indeed, considering this painful Way of Proceeding, which yet is unavoidable, the Part affected, the Accidents attending, with their uncertain Issue in malign, fistulous Ulcers; Castration here also may be found expedient, and very probably the easiest Remedy of the two: However, in all Cases of this or the like Difficulty, it will behove you, as I have elsewhere advised, to consult with some antient and learned Master of
your

your Art, that both your own Reputation, as well as your Patient's Welfare, may be thereby secured; this too should be done in Time, before a *Marasmus* comes on, when he is in no Condition to undergo the Method of Cure. And this is all we have to communicate concerning the *Hernia carnosæ*, unless that I add this Remark of *Hildanus* thereon, that in all his Practice, he never observed more than one of them upon the left *Testis*: His Conjecture of the Reason, which I think not over forcible, you will find in his 4. Cent. and 64. *Observ.* Yet as I remember, for confirming this Remark, since I took Notice of the same, I have observed more upon the right than left. Those I have extracted, which were three, being every one of them on that Side. The same Author, if I mistake not, will have the *Hernia aquosa*, meaning thereby, doubtless, the *Hydrops Testis*, to be found more commonly on the left Side.

Of the HERNIA VARICOSA.

When the Blood-Vessels of the Stone, I mean *Hernia va-* particularly the *Venæ spermaticæ*, called by the *ricosa*. Antients *Præparantes*, are in their Ascent from the Body of the same, or its *Epididymis*, by some *Remora* or Stop given to the Fluid therein moving, obstructed and distended by some thicker or grumous Parts thereof thrown out to the Sides, the rest tho' heavily passing on; these Vessels, I say, becoming knotty, as they appear more frequently upon the Legs, give Rise to another Distemper of this Part, which is called *Hernia varicosa*, creating a great deal of Pain and much Trouble to get rid of.

†

Some

Some Authors have distinguished the same as *external* and *internal*, calling the former by the Name of *Circofele*, the latter *Varicofele*, which they will have more particularly to carry Impotency along with it.

As to the Cure, which is for the most Part only *palliative*, the same consists chiefly in Depletion of the Vessels by *Venæsection*, supporting the Weight by a Bag-Truss, with restraining Applications underneath, to prevent the farther Dilatation of the same, as is practised in the *Varices* of other Parts, with an exact *Regimen* in Diet and the other *Non-naturals*.

HIST.
XXXV.

A Clergyman of my Acquaintance was the most severely afflicted with this Malady, of any Person I ever met with, having the *spermatic* Vessels so distended, more especially on the right Side, from their Ascent by the *Corpus Pampineforme*, called otherwise *Varicosum*, up with the *Cremaster* to the *Processus Peritonæi*, that they felt like so many large Cords, tied full of Knots, creating oftentimes such gravative Aches or Pains darting thence to the Loins, as rendred him uncapable to stand upright, confining him to his Chamber, which Distemper had been of long standing.

In Order to his Relief, he was frequently let Blood, and purged with *Lenients*, as *Cassia*, *vel Elect. Lenit. cum Pulv. Rhei*; being also *Nephritical*, in great Extremity he was forced to have Recourse to *Anodynes*, as the *Pil. Matth. to 3ß. or gr. xv.* also the *Ol. Lini, vel Amygd. d. cum Syr. de Meconio*; upon which Occasions he had several kind Visits from Dr. Mead, who, in Consultation with me, directed what was necessary to palliate his present Complaints. He fell at length into a Dropsy, accompanied with a
Jaundice,

Jaundice, having, to sooth his Spirits, too much indulged himself with strong Liquors; so that being now deprived of his usual Benefit by Bleeding, tho' the same had been frequently supplied by an *Hæmorrhoidal* Flux, he was forced to submit to the common Lot. His Custom was, when the most incommoded by these *Varices*, to dip a folded Cloth in *Oxycrate*, and clap close up to the Parts; at other Times he wore a *Cataplasm* in his Bag-Truss, prepar'd of the *Restringents* boil'd up in the Steel-Water and red Wine, thicken'd with *Farina*, and a little Bole, adding as much of the *Ol. Rosar. immat.* as might keep it from growing hard and dry.

Of *HERNIA VENTOSA*.

The last of the *spurious* or false *Hernia*, we shall recount, is that where *Wind* is pent in by the Coats of the *Testis*, or by the *Process*, inflating and blowing up the *Inguen*, by the *Latines*. named *Hernia ventosa*; by the *Greeks*, πνευματοκήλη. *Hernia ventosa*

This Tumour is differenced from the rest by its great Lightness, at some Times disappearing, and again returning; it is oftentimes contained within the outer but proper investing Coat of the *Testis*, called *Vaginalis*, which it so distends, as to render the Stone itself inapprehensible; at other Times it affects only the Parts of the Groin, huffing up the same like a true *Hernia* at the first Sight, but is known therefrom, not only by the Want of Solidity, or the interposing Gut, or Caul, but the Absence of the common Symptoms, as *violent Pain*, *symptomatic Fever*,
Vomiting,

Vomiting, Singultus, Constipation of the Belly, and the like Attendants upon the intestinal Hernia.

Infants are the usual Subjects of this Infirmary, as well as the following, by Reason of their lax and humid Tempers, want of Heat, their Manner of Diet, and their infirm Concoction, as well as Frowardness disposing to those flatulent Productions. But more of the Cause and Cure of this Distemper, when we come to the *Emphisema*, with which I intend to conclude my Discourse of *Tumours*; having first, as shortly as I can with Advantage to the young Practitioner of this Art, taken Notice of the true *Hernia*, of which these Parts, together with those of the Groin and Navel, are the usual Places of Receipt; but I shall first give one Instance of the *Hernia ventosa*.

HIST.
xxxvi.

A froward Infant, of about three Months old, upon every great Fit of crying, or coughing, being subject to a flatulent Rising in the *Inguen*, the Wind, more than ordinarily, breaking through the Membranes, and lifting up the outward Teguments or Enclosure, to the Bigness of a Hen's Egg, from whence with a murmuring Noise like that in the Reduction of the Gut, it would upon Pressure [when the Infant was pacified] return again, and disappear, quickly after venting in a *Crepitus*, as if there had been a Communication with the common Canal of the Intestines, particularly the *Rectum* with the *Processus*, from whence the *Flatus* seemed to break down; which had occasion'd a Mistake in one who undertook the Cure, who had treated it as a Rupture of the Bowels, by which the Pads of the Truss having still farther chafed and galled the tender Parts, had rendred the poor Infant still more fretful and peevish.

When

When I had strictly enquired into the Disease, I advised, that these should immediately be thrown aside, and the Excoriations healed with my *Ceratum de Lapide calaminari*: After which, the Cure consisting chiefly in the internal *Regimen*, to correct the windy State of the Bowels, and the Indigestion of the Ventricle; whence those Crudities did arise, that raised the flatulent Effervescence; first of all, I purged the Infant once in three or four Days with a Spoonful of an Infusion of the *Rad. Rhei in aq. Lactis*, edulcorating the said Tincture with a little of the *Syr. de Cichoreo*; and on the intermediate Days, I exhibited a full Dose of one or other of the absorbent Powders, we call *testaceous*, such as the *Margarita*, *Corallium*, *Chelæ & ocul. Cancr.* in Order to bridle the Acid usually exciting these Disorders, in that tender Age more especially; also for the farther quieting this Disturbance, and allaying the Outrage arising in the Spirits, for moderating the Cough, and dispelling the Wind by a more suitable Passage, I directed the two following Mixtures.

Rx. Ol. Amygd. d. ʒj. Syr. Capil. Ven. ʒss. M. Detur cochleatim urgente Tussi.

Rx. Aq. fœnicul. Aq. flor. Chamomel. ā. ʒij. Syr. de Meconio ʒij. f. Mixtura de qua propinentur Cochl. duo puerilia, aliquo tempore inquietudine magis molestante vel Flatu opprimente.

For the same Purpose, the good Woman boil'd a Bay Leaf, a Blade of Mace, or a few of the carminative Seeds tied up in a Rag, in the Water with which the *Panada* was prepared; and by prosecuting this Method for about a Month or five Week's Time, the Child was so entirely freed

of the Complaint, that the Swelling, even tho' it cried strongly, and thereby bore down upon those Parts, never after appear'd, or gave any Manner of Disquiet.

Of the true Hernia, with their Causes, Differences, Signs and Cure. We come now to the true *Herniæ*, of which there are commonly reckon'd two, the one owing to the Prolapse, or falling down of the *Intestine*, particularly a Part of that named *Ileon*, called *Enterocœle*: The other to that of the *Omentum* or *Caul*, termed *Epiplocele*; when both the *Gut* and *Caul* come down together, it is then named *Entero-Epiplocele*.

Again, when either of these come down no farther than the Groin, to which a Relaxation of the *Peritonæum* may give Way, it is named *imperfect* or *incomplete* by some; by others *Hernia inguinalis*: But when the interposing Body breaks through and tumbles down into the *Scrotum*, it is then a *complete Rupture*, or *Hernia scrotalis*.

The Causes of this Distemper are *all violent Motions*, or *strong Exercise of the Body* and *some of its Organs*, such as *Leaping or Jumping*, *Hollowing*, or *long holding the Breath*, *strong Coughing*, or *Vomiting*, bearing hard down upon the *Rim of the Belly*, whether in going to *Stool*, when *over-costive*, or in *Child-Birth*; *forcible and long Crying* also disposeth to the same; whence, as we have already taken Notice, *Infants and froward Children* are most liable to these Infirmities through their *Weakness* and *lax or tender Habits*.

The *Prognostics* of these Tumours are to be gather'd from the Nature of the prolapsed Body, together with that of the *Hernia* or *Rupture* it self, *whether perfect, or imperfect, the Time of its*

its Continuance, the Age of the Patient, Habit of Body, and attending Symptoms.

And thus it will appear, *there may be more imminent Danger from the Intestine than the Caul, more from a Rupture in the Cod than in the Groin, more, when of long Duration, than when recently contracted, more in antient People, than Infants or young Children.* It being observable, that if the Distemper be not retriev'd before Pubescency, it is scarce afterwards to be expected. Farther, *there is greater Trouble in weak, infirm Patients, or such as are liable to Coughs, Loosnesses; also dropical People, whose muscular Fibres are always unbent or relaxed, than in others of a more firm, tight, and vigorous Habit.* Lastly, *there is more Danger from a Strangulation of the Intestine by the Stricture upon the same, than where the Bowels have a free Liberty [tho' then the Case is irreemedyable] by the Largeness of the Breach to perform their Office tolerably in their new Habitation: In the former State, the Patient can survive but few Days, unless timely reliev'd, but is attended during the Time, with Vomiting, Hiccups, grievous Pain, languid Pulse and cold Sweats, which are the indubitable Diagnostics of a Gangrene or Mortification, and presently after conclude the direful Scene.*

When I have given you the most material Notes of discriminating the true *Herniæ* from each other, I shall hasten to the Cure. Let it then be observed, that the *Intestinal Rupture* is known from the *Omental*, by its greater Fullness, Renitency and Evenness upon the Pressure; the latter feeling softer and more susceptible of the said Impress, as if the Fingers were entring so much Dough on the Inside of the Membranes. The Patient having heretofore [where accustomed

ed to its slipping down, I mean the Gut] been able of himself lying along, with the Pressure of his own Hand to put it back into the Belly, with a rumbling or croaking Noise; tho' now through some Inflammation coming on, he finds himself incapable of the same; besides the *Omentum* falling down by it self, excites not those severe Symptoms, as attend the other Strangulation, such I mean, as we have already observed, viz. *Fever, Retching, Singultus, Convulsions, cold Sweats and sudden Death*, unless it can be reduced either by the *common lesser*, or by the *less frequent*, and *greater Apparatus*.

*The Cure
by the lesser
Apparatus.*

The *lesser* I call that, which is accomplished by the Hand or *topical Application*, without cutting; that is by Means of some discutient, or emollient *Fomentations* and *Cataplasms*, also sharp and stimulating Clysters, to exonerate or empty the Bowels; after which the Patient must be laid on his Back, with his Head reclining much lower than his Buttocks, or at some Times set revert, as it were, upon his Head, a strong Person being placed between his Legs, and raising his Hams upon his Shoulders, when standing upright at the Bed's Feet, to which the Patient is first brought, his Head resting upon the Bed, the Artist gently pressing with his warm Hand, or a Flane express'd from the *Fetus* aforesaid, upon each Side of the *Tumour*, perceives it to give Way, till the Pressure thus artfully persued, the prolapsed Body is at length returned to its Place; the Patient in some Measure contributing in the mean Time thereunto, by the drawing in his Breath; but this failing, and the Symptoms increasing, in Order to save Life, the *greater Apparatus* is to be attempted, before a *Gangrene* comes, by which the same, however

however dexterously perform'd, would be rendered ineffectual.

An antient Gentleman, between seventy and eighty, being for many Years afflicted with an *intestinal Hernia* falling into the *Scrotum*, for which he constantly wore a *Truss*, and when it hapned to slip down, was able of himself, lying along, put up the same; till by a Fit of Coughing, it came down, as he was from Home, his *Truss* not being well fitted, and when he got thither; he found it out of his Power to get it up again: However, mistaking the Disease, he sent to his Apothecary to give him something for the *Cholic*, who accordingly order'd him several *carminative* and purging Mixtures, which were no sooner swallowed, but thrown up again, as was every Thing he took. *Clysters* likewise were injected, but without any Benefit; so that continuing exceeding restless, the next Day I was sent for in the Evening, and found him dismally crying out, and retching to vomit, in which he threw up nothing but pure *Bile*. A *Hiccup* also attended; so that suspecting an *Iliaca Passio*, I concluded it a lost Case. Considering the Symptoms, together with the Age of the Patient, I was about to leave him, till over-hearing a Whisper of a Rupture he was subject to, I went to the Bed-side, and threw off the Cloaths, where I presently perceived the Source of the Mischief, the *Ileon* fallen through, and strangled by the *Rimula* of the *Process*, from whence this *Orgasmus* of the Spirits was excited, and the Fibres all along the *intestinal Canal*, or whole *Ductus alimentalis* drawn into Consent by their nervous Continuity, inverting the *Peristaltic Motion*.

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Upon which I presently sent for Mr. *Richard Bateman*, who was Surgeon to the Family, in the mean Time directing the following *Bolus* and Mixture, to obtund, if possible, the violent Irritation, and stay the Vomiting.

℞. *Phylon. rom. ʒj Ol. Carni. gut. ij. M. f. Bolus statim sumendus superbibendo Cochl. tria vel quatuor Mixtura sequis. instar Theæ calefactæ, cujus totidem capiat eodem modo urgenti Vomitu in Intervallis.*

℞. *Aq. Mentb. simpl. aq. flor. Chamomel. ā. ʒiv. Dris. Stephan. ʒij. Sacchar. alb. parum M.*

After this he lay somewhat quieter than he had done, and the Surgeon coming, I was sent to again, when with warm Flannels we attempted the replacing, raising him up by the Hams, as he lay on his Bed; his Head, by taking away the Bolster and Pillows, very much reclining, but without Success. The *Flatus* and Excrement together having rendred the imprison'd Gut too bulky to pass the Ring or Stricture which compress'd the same: So that perceiving nothing more to be done at present, without manifest Danger of heightning the Inflammation, and hastening a Gangrene by a more violent Pressure, we concluded it the safest Way to desist for the present, and endeavour to relax with an emollient *Cataplasm* till the next Morning, injecting in the mean Time the following Clyster, and repeating his Bole with the stomachic Mixture, thus,

℞. *Summit. Centaur. Hyperic. Fol. Laur. Malvæ Brancæ Ursinæ Parietar. ā. Mj. Flor. Chamomel. Melilot. Sambuci ā. Mß. Sem. Lini ac fœnugr. Contus. ā. ʒj. Coq^r. in aq. F. q. f. ad Mollitiens*

tiem reservando Colaturam pro Fotu & tuso Magmati addendo part. æq. Theriac. Andr. ut f. instar Cataplasomatis, Scroto tumefacto applicandi.

R. Decoct. com. pro Clyst. [in quo ꝑ. Bac. Juniperi incoxerint] ꝑ. Ol. Chamomel. ꝑ. Ol. Anis. Chym. ꝑ. M. f. Enema.

The same Evening, the strained Liquor from the *Fæces* of the *Cataplasma* was used, as a Fomentation to the Parts, Flannel Cloths being thence express'd hot, and applied for half an Hour, after which the *Pultis* was laid on, and continued all Night.

Early the next Morning we met again, and finding him with a low unequal Pulse, his *Singultus* and Vomiting still continuing, with great Pain and Uneasiness; we agreed upon making our last Effort, as thinking it impossible he could survive another.

Removing the *Cataplasma*, we felt the *Scrotum* much softned, less tense, or renitent by the Gut underneath whereupon applying a hot Flannel express'd from the Fomentation, and renewing for three or four Times, we call'd in a stout Man to our Assistance; when bringing the old Gentleman to the Feet of the Bed, as his Buttocks were got even with the Edge thereof, the Fellow stooping between his Legs, laying each Ham upon his Shoulder, raised himself upright: In this Posture, whilst his Head rested upon the Bed, with warm Stuphs pressing gently from one Side to the other, still preventing with our Hands its slipping over to either, we perceiv'd by this wriggling Motion, it seemed to give Way; but removing the Pressure, tho' ever so little, it returned; whence it was plain, tho' we raised it

out of the Bag, it was only got to the *Pubes*, and had not past the Perforation; so that as we were about abandoning the miserable old Man, after a second Trial, I call'd for another Stuph, the Porter, who supported him, resting himself on the Foot of the Bed, from whence lifting up again, whilst Mr. *Bateman* was pressing the whole Body of the Intestine with the Palm of his Hand up towards the *Proceſs*, I wriggling up some Part on each Side with my Fingers, perceiv'd it plainly passing through; so that continuing this gentle Motion, and forwarding the Pressure, the Remainder unexpectedly at once slipt up with a perceptible Murmur; when laying him immediately down, and raising him up to the Bed's Head, whilst the Surgeon kept his Hand close upon the *Proceſs*, the Truss-maker being sent for, fitted him for the present with a Dimity Pad, till a Steel one could be made for his future Security, or Prevention of Relapse. This done, the following *Electuary* and *Aposeme* were order'd for his Cough, which had been somewhat increased by Cold, during the Time of exposing him in the Reduction; and after ten Days, this remarkable old Gentleman appear'd again abroad, being yet living, strong and hearty.

℞. Conf. Rad. de Symphito Conf. Rosar. rub. ā.
 ℥j. Bals. Lucatel. ℥ss. sperm. Ceti zij. Bals. Peru
 ℥j. Syr. Capil. Ven. q. s. M. f. Elect. de quo
 capiat. q. N. Mosc. Mane ac Vesperi, superbibendo
 ℥iv. Decocti seq^{ti}.

℞. Decoct. Pectoral. depurati ℔i℥. Tinct. Croci
 aq. Theriacal. extr. ℥ss. Syr. Bals. Tolut. ℥j. M.
 f. Aposema.

I have

I have met with so many of these concealed or mistaken Cases, especially in Women, that I think it behoves every Artist, who is sent for to a *colical* Case, at least so represented, where the Symptoms of Pain and Vomiting, particularly a *Singultus*, are extreme, to enquire whether such Accident is not the Original of the Complaint; otherwise they will find it but lost Labour to go about the taking off these Symptoms, whilst the Cause is overlook'd

It is not long since, that I was sent for to a middle aged Man under the like Circumstances, who, one might have imagin'd, could scarce have been so bashful, nor yet so ignorant of his Case as to have kept us all so, till half an Hour before his Death, when he informed the Apothecary, he had a Rupture that came down three Days before, and which he could not now as formerly get up again. Upon this, a Surgeon, standing much fairer in his own, than the Opinion of his Brethren, took upon him to find Fault, saying, that had they sent for him ever so little sooner [the common Insinuation of vain Boasters, to raise themselves a Name, and depretiate their Betters] he could have saved the Man's Life; and so with as much Probability might any other, who had been acquainted Time enough with the Accident, that is, before a Gangrene had seized upon the Part: And yet I am satisfied, if this Life-saver can say, he was never foiled in reducing an *intestinal Hernia*, tho' call'd in at what Time he would desire, he can say more [if he was ever concerned with many of them] than most other Gentlemen of the Profession. But leaving these *Empirics*, I proceed.

A young Fellow, upon a Misfortune of this Kind, sending for a Surgeon of his Acquaintance, my

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my near Neighbour, who coming to him, and perceiving the Symptoms threatening, such as *violent and continual Vomiting, Hiccups, languid Pulse, and clammy Sweats*, advised his Friends to call me in to his Assistance; and finding an Attempt had been made without Success for the Reduction, and indeed little Likelyhood thereof, the Intestine being so indurated with the Fœces, as well as inflated, that it was impossible to be returned at present through the *Rimula* it had before slip'd: So that all I could do for his Relief, was to bridle, in some Measure, the Convulsion, by the Force of *Anodynes*, till by *discutient* and *emollient* Topics, the Tumour was a little softned, and the *Flatus* dissipated; for the former Intention, after a Clyster had been thrown up and returned, I prescribed as follows.

R_x. *Phylon. rom. ʒj. Ol. Juniper. gut. j. M. f. bolus quamprimum sumendus, superbibendo Haustulum seq^m.*

R_o. *Aq. Cinn. Hord. ʒj Spir. Menthe ʒij. M. f. Haustus.*

To the *Scrotum* was applied the like *Fomentation* and *Cataplasm*, with that in the foregoing; between Whiles, he was order'd to sup three or four Spoonfuls of simple Mint-water scalding hot, with ten or fifteen Drops of *liquid Laudan.* as the Urgency of Pain and Vomiting should require. But indeed, as I have observed before, 'tis almost fruitless either to endeavour or expect to appease the Symptoms, whilst the Irritation is continued by the displaced Intestine, and the Fibres of the Guts thereby put into a retrograde Motion, by which those of the Stomach it self are drawn into Consent; and whatever is taken
[after

[after the Manner of the *Iliaca Passio*, from this dreadful Symptom of throwing up even the Excrement it self by the Mouth call'd *Miserere*] is presently cast up again.

The next Day, upon taking off the *Cataplasm*, a Mortification of the Compass of a Shilling, appear'd on the Outside of the *Scrotum*, which the Surgeon carefully scarified, and fomented, dressing up with the warm *Ol. Terebinth.* and *Linim. Arcæi*, with a *Cataplasm* of *Theriaca Lond.* on the Outside, supported with a T. Bandage for the present, in the Place of a Bag; when finding no Likelyhood of his Escape, *his Pulse low and intermitting, his extreme Parts cold, his Singultus almost perpetual, with other Messengers of Death at Hand*, I took my Leave, not expecting he could hold out many Hours. But the next Day, the Surgeon acquainted me, that the young Man was yet living, and that he had observed the Excrement to come through the mortified Part; a Case so very remarkable, that I thought it well worth While, to make him another Visit; when in Company with the Surgeon, passing in a Probe, and turning the rotten Slough on one Side, I found more of the *intestinal Fæces*, or Excrement therein, and penetrating still farther into the Gut, drawing forth the Instrument, I plainly perceiv'd, as well by Sight as Smell, the same Defilement thereon.

Thus, after several Days Languishing, expecting his Departure every one of them, did this poor young Man surmount the most imminent Danger; the Ulcer, by the great Diligence and Care of his Surgeon, *digesting*, and healing up on the Outside, the Gut, being now emptied, uniting also and returning to its Place; so that whilst *Art* was employed in repairing the outward

ward Breach, *Nature* was not wanting in so good a Subject, to perform a much greater Work, the healing of that within, the Patient being yet alive and in good Health, at the writing of this his Case.

The Cure
by the greater
Apparatus.

This common Way of the Reduction thus by the Hand, failing, the last Refuge is that of the *Apparatus major*, by which we understand the placing of the Patient commodiously for the Operation, either on his Bed or Table; and having there secured him, you are carefully to incise the outward Teguments, beginning first upon the Side of the *Scrotum*, as we observed in the *Castration*; which having enter'd, you pass in your *Director*, and thereupon divide farther, till you are got up to the *Inguen*, and have laid bare the *Cremaster*; then entring heedfully your crooked Knife buried in its *Sulcus*, for the Security of the Vessels and the subjacent Bowel, when it is got up to the Stricture, you raise the same, and lay your Work in View, with your Sponge first cleansing away the Blood, which is not much at these Times, and, with your Finger, examining the Condition of the *Rupture*; having found the *Stricture*, you are lastly to force the End of your crooked Knife in its *Sulcus* as before, between that and the *Gut* or *Caul*, as it happens, and enlarge your Wound upon the *Aponeurosis* or Ring of the *Process* making the Strangulation, till you have made Way for your Finger to enter thereby; which being thus dilated, and the Passage enlarged with those of your other Hand, you are to raise the prolapsed Body, and gradually put up the same into its former Place. This done, with your crooked Needle you make as many *Sutures* for conjoining the Lips of the Wound, each at an Inch

Inch Distance, as the same requires, laying your Patient in his Bed, with his Hips a little elevated, and his Head as low as he can suffer it, proceeding farther, as in penetrating Wounds of the *Abdomen* shall be hereafter directed.

Monfieur *Vaughion*, *Guliel. Fabricius Hildanus*, as well as our own Countryman, Mr. *Wise-man*, have given farther Instructions herein; but after all that I my self have said, or they have told us, I would have the younger *Artist* know, 'tis easier talking of, than performing the Work; and that a perfect or compleat Knowledge of the Structure of this *Proceſſus Peritonæi*, to be obtain'd only from ocular Inspection by *Anatomy*, is of absolute Necessity: Nay, this obtain'd, I would caution him from rashly adventuring, till he has seen it enterprised by other expert Artists, at least [as for the Qualification for *Lithotomy*] tried it often upon dead Bodies.

'Tis true, the Operation is not very often put in Practice; but many Lives, I am well assured, may be thereby saved, which are lost for Want of its being timely performed, before the fatal Symptoms from the Inflammation, occasion'd by the Strangulation, such, I mean, as *Gangrene* and *Sphacalus*, come on, and destroy the Patient. I do acknowledge, that I never more than once perform'd the Operation, and then lost my Patient by coming too late, the Gut appearing gangren'd upon the same.

Mr. *William Petty*, and some other worthy and good Artists in this City, have been more successful, the former thereby recovering an old Man from the most imminent Danger, who many Years survived the Operation.

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xl.

At the writing of these Observations, I was called by a Surgeon in *Spittlefields*, to visit a stout and middle aged Man, then labouring by some Accident under an inguinal Rupture. I found him in great Pain, with the usual Symptoms of *Vomiting*, *Hiccups*, and *languid Pulse*.

He had been bled and clyster'd before I came, which was, I think, the second Day; from the last of which his Bowels had been somewhat emptied, to moderate the Symptoms, and get a Truce from his Pain. I order'd a Grain of the *Extract. Thebaic.* with a little hot Mint-water after it, which was to be repeated at a proper Distance, if the Pain continued, or that the former should be thrown up in Vomiting: A *Fomentation* and *Cataplasm*, as well discutient, as *emollient*, were likewise prescribed, after the Manner of the foregoing.

The Tumour lay very hard in the Groin, and at present, thereby incapable of being replaced, which had been to no Purpose, by the Surgeon and my self [yet with Caution] attempted.

The next Day, perceiving no Advantage from what had been order'd, at least the Complaint returning, when the Effect of the Opiate was worn off; a bold, but most ignorant Pretender, came to him, and assured him, he could disperse the Swelling, calling it Wind, with a Plaister, and a Dose of Pills; accordingly, the Plaister was laid on, and the Pills taken, which, in few Hours, so enrag'd his Pain and Vomiting, that we were again intreated to visit him in Consultation with Mr. *Petty*, who hastned away to him, and upon farther Examination of his Pulse, and the singular good Condition of his Habit, concluded him a fit Subject for the Operation,

ration, which he himself was desirous to undergo, for the saving of his Life. That as little Time might be lost as possible, we agreed to meet again in the Afternoon, in Order to the same; in the mean Time, the following Clyster being thrown up, whilst the Surgeon, or his Servant was to continue the Application of warm Stuphs expres'd from the Fomentation, till we came, the Draught also, as follows, upon the Return of the Clyster.

R. Laud. Lond. gr. jß. Aq. Cinnamom. Hord. ʒj. Spir. Menthæ, ʒij. M. f. Haustus.

R. Decoct. com. pro Clyster. in quo ʒj. Colocynth. ligata petia, incoxerit tß. Conf. Hamech. ʒß. Ol. Anis. chym. ʒj. M. f. Enema.

The Clyster staid but a little While, yet brought away some Excrement, after which together with his Draught, being retained, and the Use of the *Fotus*, we found such an Alteration of Circumstances, that when we met fully purposed to make Incision, the *Apparatus* already provided; coming to examine the Tumour, we perceiv'd it lessen'd, as if the prolapsed Body was returning, his Pulse calm, his Vomiting and *Singultus* ceased, and the Patient much heartier, as in a State of Ease; so that having tried a gentle Compression, but without answering our End; we however, agreed to wait another Night, the rather, lest, if we should not have succeeded in the Attempt, the Friends would have said, we had killed him; or if we had, since he seem'd now so much alter'd for the better, they might have said, there was no Need of so desperate an Experiment, and that he would have done well without it.

Upon so slippery a Foot indeed stands the Repute and Credit of every honest Gentleman conscientiously practising this noble Art; and by Means of this Tenderness, I can't deny, but that in Probability we lost our Patient. For returning the next Day, we found the Symptoms now so desperate, with little or no Pulse, and cold Extremities, that the Operation was not to be enterprised at all; the poor Man, as was plainly to be perceived, now out of the Reach of our Art, departing in few Hours from the Time of this last Visit.

After his Death, the Surgeon having got Leave, Mr. *Petty* call'd upon me, and for our own private Satisfaction, we went to open the Body, as formally, as if upon the live Subject. The *Scrotum* being divided, he cut up to the *Pubes* by the Guide of his common Director, then entering his crooked Knife in the *Sulcus*, dilat-ed farther up to the *Processus*, when the intercepted Body making the Tumour came into Sight; which having examined, we discover'd first of all the *Omentum*, inwrapping the Gut all round with its Blood-vessels, blackish and turgid through the Stagnation; turning this aside, the *Ileon*, I mean a Portion thereof, which was together split through, presented it self likewise to View, gangren'd also, and collar'd, as it were, by the Ring, which had girt it so about, as if a Ligature had been tied round, under which forcing the End of the furrowed Director, with the Knife therein, on the Outside of the Intestine, he strait gave Liberty, cutting through the Stricture, and the prolapsed Bodies were then returned with all imaginable Facility, which without, was as impossible under the present Condition, as for a Person to essay the forcing

cing of his Fift through a Ring taken off his Finger. Nor should it seem strange, that the same Bodies thus slipping through, should not be capable oftentimes of being return'd back; since at the Time of sliding down, they are lank, slippery, and flaccid, but being filled quickly after, by the *Fæces* falling gradually down, or distended like a Bladder with *Flatus*, they are put upon a Tention, whence Inflammation, Gangrene, and all the direful Train of nervous Symptoms, *sympathically* arise, and destroy the Patient; the Intestine, all the while, in its upper Part, being girt round in the Ring of the *Processus*, after the Manner of the *Glans Penis* by its *Præputium* in the *Periphimosis*; which how easily soever slip back, yet by a Fluxion presently arising, the tumefied *Glans* lies strangled underneath, and sometimes mortifies; but to go on with our Subject.

When the prolapsed Body, whether *Gut*, or *Caul*, shall happen to be return'd by the gentle and artful Pressure of the Hand, as they are very commonly, some good corroborative Emplaster, as those *de Bolo, vel ad Herniam*, but especially the Bolster-Truss, well fitted to the bearing down, are of absolute Necessity; which last are made either of Dimmity for young Infants, or Steel for others, with which we suffer Children to play about, and take the common Diversion of their Companions; there being now little more requisite than a frequent Inspection of this outward Pressure, to see that the same sits easy, snug, and close, and sufficiently intercepts the Relapse of the Intestine, to accomplish the Cure [so far as the same is attainable] of this Disease.

And here I can do no less than inveigh against *Pretenders* those scandalous and knavish *Impostors*, who set *to the Cure* of *Hernia*.

up for the Cure of this Distemper, under Pretext of their Knowledge in fitting the external Compress, or their Art of *Truss making*, very necessary, it must be confest, as are many other Pieces of the mechanic Art; but when the *Truss-maker* assumes the Post of a *Chirurgic Operator*, he is as much out of his Sphere, as the other Instrument-maker would be, who should pretend to perform himself the Operation, in which those Instruments are used.

So very ignorant are most of these Artificers [and how indeed should we expect it otherwise?] of the Structure of Parts in this particular, notwithstanding their boasted Skill, some of them most impudently assuming the Name of *Surgeons*, that I have seen several Venereal Patients, with *Bubo's in Inguinibus*, wearing their Iron Hoops; and very lately one, where the prolapsed Intestine, which tho' attempted, never was reduced, was so press'd by the Pad against the *Pubes*, that the Skin on the Outside was mortified, the Intestine underneath partaking of the same Fate, and the Patient's Death at least accelerated thereby.

And yet these are the cosening Knaves, our deluded Patients generally apply to now a Days, first of all, for the Cure of these Infirmities, who ought no farther to concern themselves than in measuring the Waist, and observing the Dimensions, that they may adapt the Bolster suitable to the Part, which is to secure the Relapse.

Mr. *Johnson* near the *Blewcoat* Hospital, is a Man worthy of Recommendation upon these Occasions, in that he performs his Work beyond all I have met with, and concerns himself no farther than he is directed by the Surgeon, whom he prudently adviseth the Patient to take better Advice

Advice of; and this remarkable modest Man I have the rather taken Notice of, at a Time when we have scarce any Distemper, for which some quacking Remedy is not publickly vended, or which is not taken out of yours and the Physician's Hands by some crafty Knave, or fraudulent Pretender. But among the rest, I think the *Several Sorts of Quacks.* *Venereal*, the *Scrophulous*, the *Ophthalmic*, the *Cancer*, the *Rupture* and the *Bone-setting* Undertakers, by their egregious Villanies, have done more Mischief than all others; and so it will be, till the Legislature [surely it is high Time] takes Care to prevent it by some effectual Law, that may supply the Deficiency of your present Charter.

In a Discourse lately published, call'd the *Modern Quack*, I find the Author has sufficiently expos'd the fraudulent Practices of these People, and laid open their vile Abuses; but Detection, as he observes therein, without a coercive Power to restrain them, will avail but little. Wherefore leaving that Subject, all we shall offer farther as to the *inguinal* and *scrotal Hernia*, is this, that upon the Reduction, the Truss being well fitted, is to be continued for many Months, perhaps Years, after a supposed Cure; at least till the relaxed or ruptured Membrane be contracted and agglutinated, which in Children is frequently effected, in the adult but seldom, and never in the antient; so that these People must be contented to wear their *Safeguards* to the Day of their Deaths.

As a farther Help however, especially in the younger People, who are capable of a Cure, besides the *topical* Application of a restraining Plaister and the Pad over the same, some proper *traumatic* Decoction may be given inwardly,

Agglutinatives useful in the Cure of Herniæ.

prepar'd of some of the ensuing Plants, viz. *Rad. Symphiti, Tormentillæ, Bistortæ, Pentaphilli, Polygonati, Osmundæ regalis, Folia Hyper. Cynoglos. Herniar. Pilosel. Alchymil. Saniculæ, Bugulæ, Equiseti Plantaginis*, or the like Vulneraries, so called, for that by their gentle Stipticity and other sanative Properties, they imbue the Blood with a Sort of an artificial *Gluten*, and restore the Spring of the Fibres.

To these are added also some Gums, and natural Balsams, as *Thus, Mastich, Styrax, the Balsamum Tolut. Peruanum. Gileadense, Capiivi*, together with the artificial one of the Shops, that common Preparation of *Lucatellus*: Likewise the several *Terebinths* of *Strasburg. Chio, Cyprus*, made into Pills with some restringent Powders *ex Bolo, Ter. Japonica, Coral. Sanguine Draconis, &c.* to all which must be added lastly a regular Diet of Meats, easy of Digestion, affording good Nourishment, rather drying, than over moist or slippery; avoiding all gross and windy Aliments.

I know it has been a prevailing Custom among some, not only in these Cases, but also in fractur'd or broken Limbs, to order the *Extremities Animalium*, for their constant Food, at least to prepare for them the strong Jellies thereof; such I mean, as the *Neats Feet, Calves Feet, and Trotters*; and this they seem to ground upon a Persuasion, that this glutinous Sort of Food will sooner furnish Matter for a *Callus*, in the one, and help to consolidate the ruptured Membranes in the other.

But when we strictly survey the Nature of these *Aliments*, composed principally of *Membranes, Tendons, Ligaments, and Cartilages*, together with that of the Nutrition of the Parts,

we

we shall find, that by their cold, slimy, or viscid Particles, they seem not only more difficultly digested in the first Passages, but for the same Reason, more slowly transmitted through the fine Tubes of the Lacteals; and probably when sanguified, less assimilable to the Pores of the Parts, than Flesh of the same Animals, rightly prepared, would be.

As to what relates to some of the other *Non-naturals*; let the *Sleep be moderate, and Rest rather indulged than abridged*; all extreme Motion or Exercise being highly prejudicial, especially *Jumping or Dancing, Hallowing, and long Retention of the Inspiration, violent Coughing and Sneezing*; whilst the Body, so far as possible, is kept in such *Medium*, with Regard to the *Excreta & Retenta*, that the Sick may not be over loose on the one Side, which by relaxing the Parts of the lower Belly, increaseth the Disorder, nor over bound on the other, by which streining to exonerate, the Pressure being made immediately on the grieved Part, the *Peritonæum*, there may be Hazard of a Relapse; for which Reason, these infirm People should always bear hard with their Hands against the Groin affected, when under Necessity of streining upon the Stole.

Of Kin to these *Ruptures*, is that of the Navel, named in *Latin, Hernia Umbilicalis*, in *Greek, ἑξομφαλός*. ^{Hernia Umbilicalis.} This Part being liable to the same Misfortune with the Groin from the like Causes, and having much like Signs of Distinction, whether *spurious* from Wind or Water, or *true*, as by the Gut or Caul, split through; and as in that a right *Idea* of the Parts, in Regard of their Structure or Formation, was absolutely requisite, so here no less: This being made up of

the *Umbilical Vessels* of the *Fœtus*, passing obliquely through the *Peritonæum*, in the Center of the *Linea alba*, almost after the same Manner as the *Cremaster* with the *spermatic Vessels*, through the Rings of the *Processus*, which uniting in the Skin, compose that nodose Part, we call the *Navel*. The Cure somewhat also alike, by a warm Hand, after the Use of a discutient and emollient Fomentation, to endeavour the Reduction of the Bowel displaced, which if strangled by the Perforation in the *Peritonæum*, or not giving Way to a Return by the Passage it had got through, as distended perhaps by *Flatus*, or tumefied by the Inflammation and Fluxion falling upon the same, the Remedy, as before, is, by dividing the Skin and Muscles of the *Abdomen*, especially their *Aponeuroses*, or nervous Expansion, when carefully raising up the *Peritonæum*, for Fear of hurting the Guts, you are to dilate that Part that makes the Coarctation, so far that you have Liberty to return the prolapsed Bowel back into its Place : After which the *Gastrostaphia*, or Suture of the Belly practised in these Cases, is to be made, by which the Wound and ruptur'd Membrane of the *Peritonæum* aforesaid, may be agglutinated and united, and the Relapse thereby prevented, the same being treated, as in the Wounds of this Part shall be observed in our following *Sections*.

But truly 'tis very seldom, as we have already taken Notice, that these Operations are put in Practice ; for if there be Strangulation either *inguinal* or *umbilical*, the Symptoms are often so very acute, that 'tis a fatal Case sometimes, through the Delay and Ignorance of a *Rupture Merchant* bruising the Parts, before we are consulted ; or, if there be Room for the same, and we come Time enough, but can't succeed by the

lessen

lesser Apparatus, yet the Patient opposing the *greater*, prefers Death it self thereunto, and deprives himself of the Chance still left for his Escape.

Where there is no Strangulation, but on the contrary, the Breach so large, that the Bowels tumbling down into the Cod, or falling through to the Navel, there [tho' very incommodiously] performing their Office, the Patient rests himself content in supporting the same, and keeping them from Swagging, by the Bag-Truss for the *Scrotum*, or the Brace and Bag for the Navel.

And thus we shall take our Leave of the *true* or *genuine Herniæ*, with this Caution only, by *A Caution*. Way of farther Advice to the young Artist, that as Tumours of the *Scrotum* and *Testis* are not to be open'd without mature Deliberation and Consultation first held upon the same, much less those of the *Abdomen*, without a just *Prognostic*, lest the Contents being mistaken, the Patient happens to lose his Life, and the Surgeon what should be as dear to him, his Reputation. We read it was the Want of this, in an Operation of the like Kind, where the Bowels followed the Knife, was the Occasion of one of the greatest Artists of his Age, being forced to fly his Country, and live in Exile.

OF FLATULENT TUMOURS.

Having now dispatched the more gross and *bu-* *Of an Em-*
moural, together with those *Tumours* arising from *physema*,
the Interposition of some of the Bowels preter- *or flatulent*
naturally displaced; we come in the last Place, *Tumour*.
according to Promise, to treat of the *Flatulent*,

or those from Wind pent up, and distending its Inclosure.

This Tumour is by the Grecians named, *ἐμφίσημα*, being defin'd, a white and puffy Swelling, renitent or strait returning after Pressure; at some Times a gentle murmuring or crackling Noise of the Membranes inclosing the same, may be perceiv'd upon handling.

The largest of these Tumours, is that we call *Tympanites*, a Swelling of the Belly, so named from its Sound like a Drum, when beat upon.

The Stomach likewise and Intestines are the Seats of this Disease, Witness those painful Inflations and cruel Colics of these Parts; but these peculiarly fall more under the Direction of *Physic* than *Chirurgery*.

The Tumours principally intended here, are those at some Times observable on the Outside of the Body, whether *Breast*, *Belly*, *Joints*, the *Fore-head* and *Eye-lids*, the *Præputium Penis*, and other Parts.

Upon the *Joints* I have had several of these Tumours recommended to me, which have been by some of the younger Practitioners, mistaken, and deemed *strumous*, because not discolour'd, like those of the *inflammatory* Kind: Wherefore I have thought it necessary, to lay down these Notes of Discrimination, *i. e.* that the *white Swellings* of the Joint, usually call'd the *Joint-Evil*, tho' of the same Colour, are more equal, compact, locking up, as it were, the *Internodes*, and contracting the Tendons, hinder the free Motion thereof; whereas in the windy Tumour of these Parts, the Swelling is more unequal, seated commonly on each Side the *Patella*, sometimes on one Side only, higher or lower, feeling soft and puffy, as if the Membranes were inflated with

with a *Blow-pipe*, the Motion being continued, tho' great Weakness attends, and Pain also upon the same.

From the *Gout*, however arising possibly from a sharp *Flatus*, or Effervescence stirred up in these Parts, it is plainly differenced by its less acute Pain, more gradual Rise, and less also of Fluxion attending the same, by which the Patient is capable of going about, which he can't but with exceeding Difficulty, under an *Arthritic Paroxysm*.

As to the Causes of this *windy Tumour*, there are several that do concur to its Production; the famous Dr. Glysson in his Tract *de Ventriculo & Intestinis*, reckons them up as follows. Causes of Emphysema.

Intemperies calida, necnon frigida, Obstructio Meatuum, Influxus Humorū, Fermentatio, Congressus hostilis, & Incarceratio Halituum.

But albeit these severally may concur as Causes to the Production of a windy Swelling, yet do the more immediate or efficient seem to arise from two of them, I mean, *Fermentatio ac hostilis Congressus*, which last occasions the first.

Nor is it any thing strange, that from a Ferment raised in the Blood, by an Admixture of some *heterogene* Matter, this hostile Conflict should arise, since we see the same Thing daily acted before our Eyes, by pouring two Liquors of differing Textures into the same Vial, viz. the *Spirit of Niter* upon the *Spirit of Wine*, whence such an *Halitus* immediately ariseth, as occasions not only very considerable Heat, but endangers the breaking of the Glass, if great Care be not taken in pouring on the said Spirit, as it were by Drops.

And what is more common than to see an infinite Number of flatulent Bubbles rise with a hissing

hissing Noise, by putting an *Alkaline* Salt, such are the fixed ones of Plants, into an *Acid* as the Juice of Lemon?

Again, if we take a View of what occurs of this Kind in the *Macrocosm*, or greater World, we shall meet with a Resemblance, tho' of a lower Degree, in that which passes in the *Microcosm*, or lesser one, the human Fabric. Thus the kindly Steams, that by the Heat of that central Fire, the Sun, are rarified on the Surface of the Water, and fly up to the Elementary Regions, are by the Cold of the *Atmosphere* condensed, falling back again in as kindly Showers of Rain: Whilst those arising from some *mineral* Exhalations, or foreign Ferments, either in the Bowels of the Earth, or in the Air, no sooner meet, but conflict, to the great Danger of all that is within the Sphere of their Activity; breaking through all Obstacles, with the most violent *Impetus*, and carrying all before them.

If it be asked, how this *Halitus* happens to be thus imprison'd, or shut up in the Parts of our Bodies? We may answer, from the weak and infirm Heat thereof, unable to concoct at some Times, or rightly to digest the same, together with the morbid Nature of the *Halitus*, or Vapour it self, which will not admit of Transpiration. For I think the including *Tunics* are not to be numbred among the Causes, any more than the Bladder is of the Wind that's blown into and distends it; since these Parts in their natural State are permeable to the kindly Steams that constantly transude, and natural to a living Body, being the same with what we call the *Materia perspirabilis*; but when it happens, as just now remark'd, by the debile Heat, and weak Concoction of the Place, that more of these *Halitus* are

are engendred than can pervade the Membranes, by their own crude Nature and the Coldness of the Parts, they either condense into an *aqueous*, or if by Reason of their malign or inimical Disposition they are not suited to the Pores, they assume a *flatulent* State, where still accumulating, they force their Bounds, tearing asunder the Fibres of the Membranes, and distending the same, huff up the Parts they possess into a Tumour, which if the same be done leisurely, as in the *congested*, is attended with less, if suddenly, as in the *Colic*, with the greater Pain.

Of near Relation to this morbid *Halitus*, are those, which, tho' unable to blow up the Parts, [and this they do also in some *Spasms*, or Cramps, as well as Convulsions] yet by their acrid and pungent Nature, are of Force sufficient to haul and tear asunder the nervous *Fabrillæ*, as they pass through: Instances of which we have in those cutting lancinating Pains, with the gnawing tensive ones, upon the Joints and membranous Parts of some diseased Patients.

Nor should it seem admirable, that together with the Inflation before observed, there is oftentimes admixt a *Phlegmatic* or watery Humour, as is found in the *Tympanites* it self: For when the Membranes are thus distended by the Flatulency, their Pores being streightned, and the Steams naturally arising, which were wont to sweat through in the more relaxed State of the same, being now intercepted, are condensed into Water, whilst the morbid ones, neither capable of the said Condensation, nor suited otherwise to those Pores, will sooner break, or tear in sunder the Parts inclosing them, than transude or perspire insensibly.

And

Difference
between
Halitus
and Flatus.

And hence it will appear, that there is a very wide Difference betwixt the *Halitus* and *Flatus*; the last likewise admitting still a farther Distinction into that which is *natural*, and of a mild Disposition, and *preternatural*, or outrageous.

Our last cited Author distinguisheth them thus, as I shall give you the same in his own Words, taken from his Treatise aforesaid.

‘ Halitus & Flatus videntur mihi differre [si respicias earum appetitum volatilitatis] ut dispositio & habitus, nam Halitus nudus levem inclinationem tantum ad Statum pneumaticum expetendum & retinendum denotat, quæque, amotâ causâ excitante, sponte flaccescit: Sed Flatus istum affectum in habitum versus significat, & consequenter pertinacitèr coarctationi reluctatur, atque amotâ licet causâ excitante, in ista affectione persistit, nec facile ad priorem Corporationem reducitur: Hinc Flatus Corpora in quibus includuntur permeare aut penetrare recusant, abhorrent enim & detestantur Unionem cum Corpore tangibili, ne in pristinam Crassitiem incidant: Quando enim intumescunt, non tam pervadere, quam perrumpere ac diffringere claustra in quibus incarcerantur, nituntur. Porro hinc ratio reddenda est, cur simplices Halitus vel permeant Corpora se continentia, vel ab iisdem in Stillas condensantur: Flatus vero ut permeationem recusant, ita & condensationem simul averfantur.

But I fear I have been too prolix in discoursing of the Nature and Cause of the *Emphysema*; wherefore remitting those, who are desirous of farther Information upon this Head, to that Treatise, particularly that Part of it *de flatu*,

tu, I shall speak a few Words of the *Prognostic*, and hasten to the *Cure*.

The *Prognostic* is taken principally from the *Prognostic* Part on which the *Tumour* is situate, and thus *of an Em-* upon the *Joints* it is not only more painful, but al-*physema*. so difficult to remove; since if the *Tumour* cannot be resolved, nor the *Flatus* dispersed by topical Application, there may be more Danger in the Opening than in other Parts more secure and superficial.

As to the *Cure* in general, there is much the *The Cure* same Method requir'd, as was laid down for the *Phlegmatic* and watery, both in Regard of *Diet*, and the other *Nonnaturals*, as well as local Application. The former must be drying and attenuating, the latter, the most powerfully resolute and discutient; and thus all Things crude, indigestible and flatulent, whether Meats or Drinks, must be avoided; all Sorts of Pulse and the greater Part of *Herbage* and *horary Fruits*, also all hard, sour, bottled and fermentible *Liquors*. A warm dry *Air*, moderate *Sleep* and *Exercise*, will be found requisite: This by Way of internal *Regimen*.

As for *Topics*, they may be applied either in the Form of a *Fomentation*, *Cataplasm*, *Liniment*, or *Emplaster*.

A *Fomentation* may be prepared for this End ex Decocto *Herb. Origani, Calamentb. Abrotani, Absinthii, Pulegii, Centaur. Rorismar. Lauri, cum Flor. Chamomel. Meliloti, Sambuci, Genistæ, & Sem. Cumini, Foenicul. Carui Anis. Dauci Bac. quoque Lauri ac Juniper, pluribus vel paucioribus in Aq. f. sub finem addendo Spir. Vini Camph. saltem usus tempore.*

Of the same Decoction may be formed a *Pulvis*, by thickening with the *Farina*, or which is much

much better, applying the Herbs and Seeds pulped, to which may be farther added, and with still greater Advantage, the *Fimus Columbinus*, *Sal nitrum*, ac *Sulphur vivum*.

Liniments for this Purpose are compounded ex *Ol. nardino*, *Chamomel.* *Aneth.* to which for the easier Penetration are added a fourth Part of the *Ol. Spicæ*, *Anis.* *Carui*, *Chym.*

Plaisters are chosen generally from among the hotter Gums, such as *Galban*, *Caranna*, *Tacamabacca*, or those ready compounded in the Shops, as the *Empl. e Cymino*, e *bac. Lauri*, to which the Powder of *Calx viva* may be added, and by which they will become more efficacious for the End intended; also where the Tention is very great, you may add some Emollient to the fore-said Discutients, in Order to relax and set open the Pores; of which Kind are the *Rad. & Fol. Alth. Herb. Malvæ*, *Branc. Ursin.* *Verbascum*, *Mercurialis*, *Parietar.* *Sem. Lini* & *fœnugr.* ready compounded are the *Ol. Lumbric.* *Ungt. Dialth.* *Nervin.* *Empl. de Mucilagin. ex Ammoniaco*, *Dia-galban.*

But if notwithstanding all your Endeavours, the Tumour proves stubborn, and gives not Way; being securely situate, and your self satisfied of its Contents, you may thrust down the Point of a Lancet, and that Way let out the imprison'd *Flatus*, after which the Tumour subsiding, you have nothing more to do than to heal up the Puncture: But considering there is generally admixed, as I have already taken Notice, some other crude and indigested Humour, and that the Texture of the muscular Fibres is some Way alter'd from their natural State; it often happens, that the Sinuosity will not agglutinate, so that there is a Necessity of dilating, afterwards *digesting*,

ting, deterging, incarning, and cicatrifing, as in other Sinus's thus open'd, is required.

A Captain of a Ship having for some Time HIST. xli. past, been much troubled in walking by a Swelling on each Side the Joint of his Knee, desired my Assistance, the Disease passed for a windy Gout, but tho' I could perceive no Room to suspect a Gout, yet I gave him my Opinion, that the Tumour arose from a flatulent Humour, join'd with a pituitous, pent in, or detain'd by the Membranes, and raising several unequal Bearings round the Joint; one particularly on each Side the Rotula, and one larger than the rest, on the vastus externus, palpable, like a Membrane huffed up with Wind, and renitent as a Bladder blown, into which I offer'd to clap the Point of a Lancet, and let out the Wind detain'd, it being situate out of Harm's Way, neither so deep as some of them are observed: But he would not permit, without a Consultation first had with Mr. Bernard, who meeting me the next Day, gave his Judgment, that it was a pure Emphysema, arising from Cold, as we had it from himself, lying fuddled all Night upon Deck, and not suffering his Servants to bring him down into his Cabin, from which Time he sensibly complained of great Weakness in that Knee; the Swelling also quickly after appearing, and upon Motion occasioning a jarring, cracking Noise among the tendinous and membranous Parts thereof. He then asked Mr. Bernard about the opening that uppermost Swelling on the Outside of the Thigh, who answer'd him, that altho' he did not see, but that the same might be enterprised with Safety, yet he was first of all desirous to try what Service we could do him other Ways, which was to attempt its Resolution,

solution, as of the rest, by the following *Fomentation*, after the Use of which the *Lime Cataplasm* was to be applied.

R_x. *Herb. Origani, Pulegii, Rorismar. Flor. Chamomel. Meliloti, Sambuc. ā. Mij. Bac. Laur. ac Juniper Sem. Cymin. Sulph. viv. crasso modo contus. ā. ℥i. Aluminis ℥ss. coq^{tr}. in aq. Fabr. q. s. pro Colaturæ ℥iv.*

In cujus q. s. prius fervescēta intingantur panni Wallici, & fortiter expressi vicissim applicentur genu circumcirca per semī horam renovando hoc Opus Mane ac Vesperi.

When we had prosecuted this Method for a Fortnight, we perceived much of the Flatulency to be dissipated; the Joint measuring less by two Inches, than when we began; so that in our next Consultation, we concluded upon a laced *Knee-piece*, and that he should wear under the same an *Emplaster de Cymin.* with a little *Calx* incorporated: By the farther Prosecution of which the Remains were in a Manner entirely scatter'd, and the Joint so strengthen'd, that by the Help of his Cane he was able to go abroad and visit his Acquaintance.

Yet upon laying aside his *Knee-piece*, which he had worn out, the upper Tumour appear'd again; so that finding his Joint so much strengthen'd thereby, he had another made, which he continued, without making farther Complaint.

Whilst he was thus treated with local Application, he was strictly kept to a *Decoct. Lign. Guajac.* with a drying Diet; likewise in Regard to his Cold and *Phlegmatic* State of Blood, *Chalybiates* and *Bitters* to strengthen his Digestion, warm his Stomach, and invigorate the unbraced
Fibres

Fibres thereof, that no more of the said *pituitous Saburra* might be therein accumulated or heaped up: For which Reason, he took also as much of the *Tinct. sacra* every third Night, as emptied his Bowels two or three Times the Day following; and so soon as he was in a Condition for the Journey, got on Horseback, and by my Persuasion rode to the *Bath*; where, having his Body prepar'd for the same by two or three Doses of the *Pil. de Hiera cum Agarico*, he both bathed and drank the Waters from the Pump, and returned, after six Weeks, very strong and free from his Lameness, as before this Misfortune.

Several of the like Tumours I have seen dispersed by the *Calx lota*, applied like a *Pultis*: Also Cloaths press'd out of a strong Solution thereof, and repeated Night and Morning for some Time, being rolled on with a Flannel Roller, have sometimes the like good Effect.

There is yet another Sort of these *windy Tumours*, wherein the *Intemperies calida* seems to have the greatest Share, and by which the Membranes, being, as it were, over-dried, the *Halitus* thereby stop'd from their natural Transpiration, recoil, and degenerating into a diseasy State, create exceeding Disturbance to the animal *Oeconomy*: Examples of which we daily meet with in some excruciating bilious *Cholics*, to whom if you give the usual *Carminatives*, or hot *Aromatics*, you will, by farther inflaming, augment your Patient's Complaint, as well as his Distemper. On the contrary, large Draughts of cold Water, and cold *Epithems*, at least bathing in Water lukewarm, by relaxing the corrugated Fibres, and taking off their Crispature, allays the Disorder and quiets the Tumult; and

thus in like Manner have I seen some Inflations of the *Abdomen* suddenly arising, and after spirituous Applications ineffectually applied, as quickly disappearing and scatter'd by an *Epithem* made only of a Solution of the Flowers of *Sal Armoniac* and *Niter* in fair Water: Not to mention those surprising *abdominal* Inflations of some of the tender Sex, under the Force of an *Hysteric Paroxysm*, which is purely of the *spasmodic*, or convulsive Kind, arising from a tumultuous Occursion of the Spirits rushing suddenly through the *nervous Plexus* of these Parts, and expanding the Membranes thereof, and where likewise, oftentimes the Hurry and Commotion is sooner appeased by a Draught of *Oxycrate*, [which was *Riverius's* Remedy] or cold spring Water, than by any spirituous or vinous Composition of what Kind soever.





SECT. IV.



Of WOUNDS in general.

IN our last Section having finish'd our Discourse of *Tumours*, we shall now proceed, and begin this with an Account of *Wounds* in general.

A *Wound*, by the Greeks call'd *Τεῦμα*, as the Medicaments thereunto appropriate are named *Traumatica*, and by the *Latines*, *Vulnus*, implies a Division or Solution of the Continuum in any Part of an animate Body. *Definition of a Wound.*

I have designedly left out of this *Definition* the *fleshy* or soft Parts, and the external inflicting Instrument, because the *Tendons*, *Cartilages*, and *Ligaments* are capable of being wounded, equally with the *muscular* or fleshy Parts.

Nay, if any Man should call a Solution of Continuity in the *Bones* themselves, such, for Instance, as that made by a Scimiter, cutting away a Piece of the *Cranium*, an *incised Wound*; another by a *Pen-knife*, or other sharp-pointed Instrument struck into the same, called commonly, *Sedes*, a *punctur'd Wound*; or in a Word, the common Fracture, a *contus'd Wound* of the *Bones*, it may very probably argue more of Singularity than Impropropriety of Speech.

Nor do we want the Authorities of *Hippocrates* and *Galen* to countenance this Way of Expression.

The *Rupture*, we know, implies the same Thing as the *Fracture*, and yet through Custom that Word is now appropriated to the Solution, as well as Relaxation of the *Peritoneum*, occasioned by the breaking through of the Bowels.

I have likewise omitted the Cause without the Body, called therefore *external*; since I see not, why a Stone bred in the Kidney, or other Parts, and by its Edge or Points dividing the Parts inclosing the same, may not as properly be said to make a Wound, as any Instrument from without; but indeed in some Respects this Stone may be said to be *external* to that Part where the Wound is given. Besides, the *Rupture* above-mention'd is as much a lacerated Wound, tho' from within, as if the Rent were owing to some Force from the Outside.

But leaving Disputes, I think the Eye, where the same becomes its Object, will better discover the Nature of this Disease than any Definition: Upon which Account we shall not take in those Breaches which are incapable of being thereto exposed, such I mean, as may arise from *Flatus*, as we took Notice at the Close of our last Section, or other acrid or sharp Humours exciting in our Bodies a painful Sensation, which, when present, we are always to suppose a Solution of Continuity, however imperceptible to our outward Sense, in the *nervous Compages*: And if any one shall object, that our Definition, however unrestrained and comprehensive, is yet deficient: For, that *Plants*, as well as *Animals* [which we ourselves have observed in another Place] are susceptible also of *Wounds*, we shall grant it true:

But

But leaving these to the *Botanic* Operator, or Gardiner, we will hasten to the Differences of Wounds in animate Bodies, among which I hope I need not here acquaint you, that I mean particularly or more especially the *Humane*.

These Differences of Wounds, I find, are usual- ^{Difference} ly borrow'd from the Weapon that inflicts them; ^{of Wounds.} thus if made by one that has a sharp Edge, as a Knife; it is called an *incised Wound*; if from an obtuse, or one that has no Edge at all, as a Bar of Iron, or a Club, a *contused Wound*; if by Means of a Nail or Tenterhook, tearing through the Skin or Flesh, a *lacerated Wound*; and if from a sharp Point only, as that of a Rapier, a Needle, or Thorn, a *punctur'd Wound*.

But quitting these also, with other accidental Differences, arising from the *Figure, Time of inflicting*, and the like, we come to the Signs; and here, the *Diagnostic* ones, of Wounds made outwardly upon the Parts, are, as we have already remark'd, self evident.

Indeed where the Wound penetrates, or ariseth from some Cause within, these Signs are to be taken, as well from the Posture the Person was in, who gave the Wound, as that of him who receiv'd it, the Parts opposite, or near adjoining, the Excreta from the Wound it self, or its outward Orifice, and the Nature of the Patient's Complaint: *Anatomy* must furnish the one, and an Acquaintance with the usual Symptoms, the other. For as the *Heart, Lungs, Liver, Stomach, Spleen, Intestines, Kidneys, Bladder, Womb, &c.* have almost always the same natural Situation, so likewise their constant and proper Symptoms upon Hurts receiv'd: Of which we shall take more particular Notice, when we come to handle the *Wounds* of the several Parts.

Prognostics
of Wounds
in general.

The *Prognostic* Signs of Wounds in general, may be gather'd from the *Nature and Office* of the *Parts wounded*; and thus, as to their *Nature*, where there are more of the *nervous Fibrillæ* go towards the *Structure*, and fewer of the *carnous*, there will be always the *greatest Danger*, by reason of the *exquisite Sensation*; such are the *Wounds of the Meninges Cerebri*, the *nervous Part of the Diaphragm*, and all other the *nervous, membranous, and tendinous Parts*.

From their *Nature and Office* both; thus the *Wounds of the Aspera Arteria, and Oesophagus, the Ventricle, Intestines, Bladder, and the like*, are full of *Danger*.

From their *Office* principally; as the *Brain, the Heart, the Lungs, whose Wounds are commonly deemed mortal*.

From the *Discharge of the Contents chiefly, and Difficulty of coming to agglutinate*; and thus the *Wounds of the Blood Vessels, particularly their larger Trunks, and in especial Manner those of the Arteries, are often fatal, by reason of the said Difficulty to restrain the Effusion*.

On the other hand, the *Wounds of the muscular or fleshy Parts, such as have neither so quick a Sense, so noble an Office, neither yet are accompany'd with so hazardous Events, are much more hopeful, and for the most part curable*: Among these we number the *Wounds of the Head*, mistake me not, I mean only those of the *hairy Scalp*, where neither the *Pericranium*, nor the *Skull*, and *Parts underneath*, have receiv'd *Injury*: *Wounds of the Face*, which tho' perhaps *disfiguring the same*, yet admit of *healing easily*, *Wounds also of the Limbs*, that is their *musculous Parts, free of the Joints, Tendons, and Blood Vessels*.

As

As to the general Cure of Wounds, we are principally to regard these following Intentions, ^{Intentions in the Cure of Wounds.} viz. the Removal of extraneous Bodies, restraining the Hemorrhage, or Flux of Blood, conjoining the divided Lips of the Wound, keeping them so conjoin'd, promoting their Agglutination, and obviating the Symptoms.

These, I say, are primary Intentions in simple Wounds, but in those complicate with Contusion, Fracture, loss of Substance, or the like; there are moreover other Requisites, as Reposition of the fractur'd Bones, Digestion of the Wound, Deterision or Mundification, Incarnation and Cicatrification: But proceeding with the Wound less complicate.

To answer this first Intention of removing extraneous Bodies, besides the common ones, there are various *forcipes* contriv'd, which from their Resemblance to the *Rostra*, or *Beaks* of Birds, have been denominated *Bills*, as the *Cranes*, *Ducks*, and *Crows Bill*, which with some others, are well express'd in Sculpture by *Scultetus*, in his *Armamentarium Chirurgicum*, also by *Ambrose Parey*, and that most expert Practitioner *Guliel. Fab. Hildanus*: But these, I think, are too well known to need an Explication: However, in their Use it may be needful to observe the following Cautions.

1. That the Patient at the time of Extraction, at least the Part hurt, must be placed in that Posture he receiv'd his Wound, otherwise the site of the Muscles being perhaps somewhat alter'd, the Cavity will be harder to be discover'd, or the Place where such Body is lodged thereby precluded: And this is very frequent in *Splinters*, *bits of Glass*, *Needles* broke in the *Flesh*, ^{Cautions about the drawing forth extraneous Bodies.}

Flesh, which if not presently discover'd and drawn forth, will sometimes work themselves quite out of Sight, and remote from the Place that they first enter'd: In one Posture of the Limb they shall likewise be plainly felt under the Skin and Flesh, and in another, lost again; a remarkable Instance of which I shall lay down among the punctured Wounds.

2. That the same be extracted as soon as possible, lest by the Fluction coming on with Inflammation, the Orifice contracts, and renders it impracticable, when you must now wait till the Wound is *digested*, and the same thereby again relaxed.

3. That in foreign Bodies lodged in the Joints, double Diligence is requir'd, that by all Means possible they may be removed, and that with Expedition, since by lying here they continually irritate the nervous Parts, and bring on Convulsions.

4. That if the said Bodies are forced almost through the Limb, or other fleshy Part, so that they may be felt on the Side opposite, it may be safer making a new Wound upon such Place, than drawing them out the Way that they went in, particularly if lodged under the *Tendons* or *Artery*, where there is Difficulty in coming at them without wounding of those Parts, and more especially where the Body impell'd is small at the Point, and larger or more spread towards the Orifice of the Wound: Of this Nature were the *barbed Arrows* of the Antients, and at this Time of some of the savage *Indians*, which are often with more Ease forced through, than drawn forth by the Wound they made at first.

5. That

5. That in extracting any foreign Matter, you use great Caution, that together therewith you lay not hold of any other, especially of the *nervous* Parts, which would excite fresh Symptoms, and those of the most dreadful Kind; for which Reason, and your more ready Discovery, if the Part will allow, you may enlarge the Wound, for the greater Facility in apprehending or taking hold of the same.

6. And lastly, Where there seemeth Danger of great and fatal *Hæmorrhages*, or of the Patient instantly expiring upon the Extraction, 'tis better to leave them, lest he die under your Hands: Also where they lie deep among the Muscles, particularly in the Case of leaden Bullets, you may, if there appears any Difficulty in the Work, leave them to Nature's Management, who sometimes will shew you afterwards a more commodious Passage for their Deliverance, either raising an *Absces*, which being open'd, they are thereby discharged, or sinking to the outward Parts, are easily cut out; at the worst they may happen to lie still and quiet where they are.

And these, I think, are the most material Points in the removing of *extraneous* Bodies: But there are yet some others, which sometimes also require to be taken out, which tho' perhaps not altogether so properly termed *extraneous*, as not forced in *ab extra*, are however become in some Sense now foreign to those Bodies they just before belong'd to, and will as much obstruct the healing as if coming from without: Such are the small Shivers or Splinters from Bones broke off in *Fractions*, and so entirely separate from the rest of the Bone, that there is no prospect or possibility of a Re-union with
the

the same: In which Cases great Circumspection will be requir'd, that you remove them with the greatest Ease to your Patient, without tearing, as we remark'd above, any *tendinous* or *nervous* Part in its Passage, or if too big to come forth at the Wound, where it lies pricking and exciting farther Disturbance, you must carefully enlarge the same, in order to Extraction thereof: These Instances are chiefly met with in *Fractures* with *Comminution*, and in *Gun-shot Wounds* from Engagements at Sea, several of which that laborious and well-deserving Practitioner Mr. *Richard Wiseman* has given us an Account of.

Topicks for the drawing out extraneous Bodies little to be regarded. There are besides these Instruments for *Extraction*, certain Medicaments both *simple* as well as *compounded*, recommended for this End, to be applied to the Part, such are the *Rad. Dictamn. Pimpin. Aristolochiæ*, also several of the Gums, as the *Ammon. Galban. Sagapen. Asafetida, Elemi*, also the *Viscus Aucupum*, and by some the *Stercus Columbinus* with such like.

But whatever these effect, I think it rather imputable to their *suppurating* and *digesting* Faculties, making way for such foreign Bodies, together with the purulent Matter they promote, to discharge themselves, than to any inherent Property of *Attraction* or supposed *Magnetism*, none of which in Cases of Danger, are to be relied on or confided in: For if any Effect has ensued of this Kind, I must confess for my own Part, I should rather ascribe the same to the proper and natural *Oscillation* of the *Fibrillæ* themselves, which are always irritated by any thing foreign, and through their contractile Property alone oftentimes get rid of them. Thus have I seen after the Operation of *Lithotomy*,
where

where the Surgeon has left a Stone unobserved, or miss'd of that for which he cut his Patient, the next Day by means of this contractile Force in the Fibre, the Stone which the Day before was not to be found, has presented it self at the Mouth of the Wound. This I well remember was the Case of Mr. Marks, with whom Dr. Groenvelt and my self were concern'd: He was nearer 70 than 60, when he underwent the Operation, which was dextrously perform'd by him, who having enter'd the Bladder with his *Forceps*, and brought out a smooth Stone as big as a Pigeon's Egg, whisper'd to me that he was sure it was not alone; and entring a second Time, he brought up another, polish'd as the first, there being usually more than one, when they are found so smooth in their Surface. He then went down again with his Instrument, and drew forth a third, then concluding he had brought all away, as finding upon a Search for that End, no more behind, I dress'd up the Patient; and the Day we came to open the Wound, which was the second after cutting, there presented a fourth Stone to our Eyes, lying in the Wound; and which at the Time of the last Search, lay conceal'd probably in a Fold of the Bladder, but had now by the natural Contraction of the Fibres, rais'd it self up to the Wound, where it was stop't by the Dressings and the Bandage.

This Case I have insert'd as the more remarkable, for these Circumstances, *there being no less than four smooth Stones of equal Magnitude, the Patient a very antient Man, well known to most of you, being a Member of your Company on the Barbers side, and living afterwards to be a Master of the same, hearty and well to near his eightieth Year,*

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Year, when he seem'd rather to die of Age than Sicknefs, but proceeding.

If a Needle lay upon a Wound, I should not doubt the Removal of it by a *Loadstone* approaching to it, but where it is enter'd the Flesh, tho' some Part lay out of the Wound, I have for Curiosity sake, try'd it ineffectually, and much less doubtless will it operate, where the same, or other Pieces of that Metal, as Nails, or the like, are bury'd deep among the Muscles or fleshy Parts.

The *second Intention* we propos'd in the *general Cure* of Wounds, was restraining the *Hæmorrhage*, or Flux of Blood, and this is oftentimes the first, where the same is so impetuous as to allow no Time for the other, lest otherwise whilst you are busied in searching for, or removing *extraneous* Bodies, such especially as may be permitted to lie longer where they are, your Patient is near exhausted, or perhaps bleeds to Death.

In staying of this Flux, the younger Surgeon must be inform'd, that in *plethoric*, or full Bodies, or *sanguine* Habits, the Wound near some sensible Part, as on the Joints, where great flux of Humour, with Inflammation, may be feared, he is not presently to dam up the Mouth of the bleeding Vessel, if the Stream is not impetuous therefrom, but to suffer the same to flow moderately, according to the Patient's Age and Strength, by which in some Degree those Symptoms may be averted, and the *symptomatic Fever* lessen'd, if not prevented.

Styptick Remedies.

To restrain this Bleeding there are many, both *emplastic* and *restringent* Remedies, made use of, such as the *Farina Volatilis*, Galen's Powder of the *Pili laporini*, *Thuroloes cum Albumine Ov.* which

which is no contemptible one for these Uses, *Bolus verus*, *sanguis Draconis*: A stronger Sort are compounded of these, mixed with the Powders of crude *Alum* or *Vitriol*, and a yet stronger of these alone: The *Colcothar* of *Vitriol* is of good Use, called *chalcantum rubefactum*, as are also the *Umbra* and *calx viva*, which two being beat up with *Galen's Powder*, and the Whites of Eggs, did remarkable Service after an *Amputation*, preform'd by Dr. Read in a Country Expedition: Nor must I forget among other famous *ῥαχαῖ* or *Blood Stanchers*, to mention the *Crepitus Lupi*, call'd commonly the *Fussball*, and much cry'd up by some.

Among Liquids there are great Variety, every *Empiric* now boasting of an infallible *Styptic*: Those which I have try'd, and none I think have answer'd better, have been the Solutions of *Alum* or *Vitriol* in their Phlegm arising upon Distillation, about $\frac{3}{4}$ ℔. of each to $\frac{3}{4}$ iv. of the *Menstruum*: Or the Oil it self added to the said Phlegm in a suitable Proportion, is a very powerful Stiptic.

But observe always, that these stronger Remedies are not call'd for, unless upon some great Effusion from the Arteries, the Mouths of which they not only Corrugate, but even painfully Cauterise and burn up, inducing thereon a sort of *Eschar* or Crust; altho' they are convenient to be ready at hand at the Time of performing an Operation, where such Accident unavoidably ensues, but by no means where the milder Remedies may take Place, as in the *venal Flux*, or Effusion from the capillary Vessels: For it is surely Hardship enough for the poor Patient to undergo the Pain and Smart from his Wound, with the unavoidable Symptoms attending, without the

the additional Torment occasion'd by many of these *Escharotics*, by which both *Pain* and *Fluxion*, as also *Fever*, are excited, together with great *Restlessness*, and oftentimes *Convulsion*.

*Ligature of
the Vessel
a good Re-
medy.*

To avoid all which, there is a much easier Way of answering this Intention, and that is by making *Ligature* upon, or tying up the Vessel whence the *Hæmorrhage* proceeds, where the same can be come at, as is now frequently practis'd upon *Dismembring*, and performing certain other *chyrurgic Operations*: And this is done by drawing out the End of the Artery, or other bleeding Vessel, usually retracting somewhat after their Division, with a Pair of *Forceps* made purposely for this Use, having a *Ligature* placed beforehand with its slip Knot, on the End of the same; then tying the said Vessel close, you thereby secure the Flux of Blood, the Ends of the *Ligature* hanging out of the Wound, and after a little Time the Vessel being incarn'd, casting off of it self.

To direct you readily to the bleeding Vessel upon an *Amputation*, the *Tourniket*, which was hard twisted during the Time of operating, may be now somewhat slacken'd for its Discovery; in taking hold of which you are farther to avoid diligently the Nerve, sometimes at hand, for fear of the ensuing *Spasm*, or *Convulsion* thereby occasion'd.

But if the bleeding Vessel lies out of reach of your *Forceps*, you are to pass a Needle strongly threaded under the Flesh, encompassing the said Vessel, where it lies fit to be thus apprehended, and bringing it out at a proper Distance on the other side, you may compress the same by your Thread streighten'd, or tied close on the outside for that Intent.

Some of the Antients propose a *wreathing*, or twisting of the Vessel, to stay the Current of the Blood, which is perform'd with a small Hook fasten'd to the Extremity of the Vein or Artery, and twisting it round for several Turns: But this, I think, more troublesome and more uncertain also, since together with the Blood Vessel, some *Fibrillæ* annexed may possibly be distorted, and the *Motus restitutionis* in both, being promoted by the impelling Fluid, especially in the Arterial Flux, must necessarily endanger the untwisting and bursting out afresh.

The last Remedy to stay bleeding is the *actual* of the *Ac-Cautery*, or hot Iron; of which before I speak, ^{tual Cautery.} I must add a Word or two of the late invented one at such Times, the *Ol. Terebinth.* apply'd scalding hot, close up to the Parts, which not only answers the End of a *Restringent*, by its intense Heat and glutinous Property purging up the Mouths of the Vessels, and so inviscating the flowing Blood as to inhibit its farther Progress, but also of a *Digestive* to the Wound it self, which I have observ'd in my own Practise, altho' I should not recommend it where the Patient lives remote from the Surgeon, or Help cannot be had, should there happen to be Occasion; neither yet, I think, where the larger Arteries are divided, and where the Cautery above-mention'd will be more secure, if the Ligature cannot be performed, which altho' it carries greater Terror, has little more Pain than the last mention'd One, the *Ol. Tereb.* boiling hot; nor half so much, considering all Things, as some of the *Escharotics* before observed; neither yet is it attended so frequently with those mischievous Symptoms consequent to their Use, such

such, I mean, as long continued *Pain, Restlessness, Fever, and Convulsion of the Nerves.*

As to the Use of the *actual Caustery*, or hot Iron, I shall say more when I come to speak of the Wounds of the *Veins and Arteries* at the End of our next Section.

*Empirical
Blood-
Staunchers
not to be
confided in.*

I purposely pass by the *corrosive Sublimate* and *arsenical Preparations* to answer this Intention, because I think them unsafe or dangerous, and I shall overlook some others, as the *Blood-Stone*, the *dried Toad*, *thrusting the dismember'd Stump into the Bodies of Animals cut up alive*; thus *Platerus* tells us of a *Malefactor* that had his Hands cut off, and clapping the Stumps immediately into the *Entrails of a Cock cut up for that Purpose*, the Blood was presently stanch'd; the *glutinous Blood of the Animal* proving a Sort of Cement to the *Vessels of the Man*: Also the *Vapor of the Blood arising from the same shed upon a hot Iron*, by which *Dr. Willis* informs us, he saw a violent *Hæmorrhage* restrained.

These, I say, together with the celebrated *Sympathetic Powder*, of which many fabulous Accounts have been dispersed, I shall, with some others, also let pass, as little better than Amusement many of them, the rest not fit to lay a Stress upon. And thus far of restraining the Flux of Blood, concerning which let me only repeat my former Admonition, that it is not every one, which requires the more violent *styp-tic* or *escharotic* Medicine, since many Fluxes of Blood, especially from the Veins, and those great ones too, are stop'd sometimes with a hard Button of Lint, a Tent or Dossil, as the Wound requires, laid close upon the flowing Vessel, with a suitable Compress wrung out of *Oxycrate*, sprinkled over with Flower, and secur'd by a good

good *Bandage*, without which, the best of your *Stryptics* sometimes prove ineffectual: Compression indeed of it self, without any Restraining at all, has stop't the most violent of these Fluxes, at least for a Time; a remarkable Instance of which, we have given us in the Case of his Excellency, *William Prince of Orange*, who in his Hurt by the Spanish Boy, as my Lord Bacon relates, where the internal Jugular was open'd, could find no Way to stop the Flux of Blood, till the Orifice of the Wound was hard compress'd by Men's Thumbs, succeeding for their Ease, one after the other, for the Space of forty eight Hours, when it was hereby stanch'd: Tho' Heurnius delivers the same [I suppose bursting out again] to be suppressed, after all others tried unsuccessfully, by Means of a Tent arm'd with a Digestive, and wrap'd round in Colcothar, or the Powder of burnt Vitriol.

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xliii.

The third Intention in the Cure of Wounds, we told you, was that of bringing together their divided Lips, and keeping them conjoin'd, which, when thus accomplish'd, is call'd Healing by the first Intention; and this is brought to pass by stitching, named *Sutura*, together with the Aid of *Bandage* to preserve the same.

Of this *Suture* there are several Kinds, the more usual being the distinct and interrupted, and the conjunct or continued.

Of Suture,
several
Kinds.

The First, and indeed the most commonly practis'd now, is made by passing a Needle with strong Thread or Silk [first waxed] through the midst of the Wound, beginning from without inwards, and on the Side opposite from within outwards; observing, that the Lips of the Wound exactly correspond, and taking sufficient Hold on each Side, when turning your Thread twice over, and gently drawing the Lips close,

close, you tye a fast Knot, and cut off your Thread; at a Thumb's Breadth Distance, making another in like Manner, and so according to the Largeness of the Wound, fewer or more, leaving the same Space at each End, especially that more depending, that in Case of *Suppuration*, or Matter gathering, there may be Way made for the Discharge of the same.

The *continued Suture*, called otherwise the *Skinner's* or *Glover's Stitch*, because practised by those Trades is used chiefly in Wounds of the *Guts*, but I think neither this nor the *quill'd Suture* are now so much in Use as formerly, the other more generally taking Place.

There is another Sort of this *Sutura continuata*, used in the Wounds of the lower Belly, where both the *oblique* and *transverse* Muscles, as also the *Peritonæum* happen to be divided, which we have formerly observed by the Name *γαστροειστική* or the *Suture of the Belly*, and which we intend to shew, when we touch upon those Wounds.

A third Suture is the *twisted*, so call'd, because the Thread, after the Needle is passed both Sides of the Wound, and there left, is turned several Times round the same, to keep the Division close, and so continued for some Days, till the Agglutination is accomplished, which is chiefly used in the Wounds of the *Wind-pipe*, and very common in the Operation for the *Hair-Lip*, where the other Suture would not be strong enough, but ready to cut through before the *Symphisis* is compleated.

Lastly, there remains a fourth Kind, called the *Sutura sicca*, or the *dry Stitch*, a very pretty Invention of the Antients, and sometimes of good Service, where the timorous Patient will not admit

mit of sewing up the Wound, or where the Stitches, either for Want of taking sufficient Hold, or by Reason of the attending Putrefaction, grow rotten, and break their Way through the Lips of the Wound.

This *dry Stitch* is well enough known among the expert Practitioners of *Chirurgery*, to be made by Means of two Pieces of Cloath, of a proportionate Bigness and Figure, suited to the Part wounded, the Cloath being for the most Part new, with a Selvege on one Side, in which you cut as many Indentures as you intend Stitches, and at a Finger's Distance, whence they are called so many *Digitations*.

Having thus fitted your Cloaths, and unravel'd some of the Threads on the Side opposite to these *Digitations*, you are to spread each with an *emplastic* Composition, such, as the *Pulv. Galeni cum Album. Ovi* above described, or some other *restringent* glutinous Powder, as *Bole Dragon's Blood*, *fine Flower*, *Gum. Tragacanth. Mastick*. and such like, beat up with the White of an Egg, leaving the Indentures free for the readier Passage of the Needle.

When you have laid these Bits of Cloath on each Side of the Wound, and so near the Brims of the same, that when the Selvege of each *Digitation* is taken hold of by the Needle and Thread, and thereby drawn together, they may also draw along with them the Division and conjoin the same: They must now, I say, lye still for some Hours, or till they are dry, and adhere firmly to the Skin they lye upon, when the Needle as aforesaid is passed through each indented Selvege, and the Sides opposite to each other brought close, in like Manner, as if the Lips of the Wound it self had been taken Hold

of, as in the other Kind of *Suture*, is practis'd: And this I think sufficient to have been deliver'd of the *Suture*, whether *wet* or *dry*, which, it must be own'd, is better learn'd by seeing the same once put in Practice, than by ten Times perusing even the best Instructions; however, for your better Information, I shall farther add these following Remarks relating thereunto.

Caution
about Su-
tures.

First, that in superficial Wounds, it is sufficient, that you pierce only the Skin it self, with the Point of your Needle, but in those more profound, or of greater Depth, where the fleshy Parts are also divided, especially the transverse, and in deep Wounds on the Joints, you are, together with the Skin, to take Hold of the *musculous* Flesh also, and at such Distance, perhaps two or three Straws Breadth from the Edge of the Wound, as will secure your Stitches from cutting through, till the Union is secur'd.

Secondly, you must take Care not to wound any nervous Part, with the Point of your Needle, which would excite fresh Pain, and endanger Convulsion also.

Thirdly, you are not to practise the Suture upon Wounds accompanied with great *Contusion*, *Inflammation*, or where there is *Hæmorrhage*, till the same is secured.

Fourthly, you are to stitch no Wounds that are *venomous*, or proceeding from *poisonous Bites*, or *envenom'd Instruments*, or where there may be Suspicion of any latent Malignity. *Lastly*, if the Wound has any Angles, you are always to take your first Stitch in those Places.

Of Ban-
dage.

As a farther Help to the uniting of these recent Wounds, we made Mention of a suitable *Bandage* or *Deligation*, which is truly of that Service, that where the Wound is longitudinal,

nal, as for Example Lengthways of the Arm or Leg, the Lips are brought together, and so kept by the alone Assistance hereof: Nor is the *Suture* so absolutely necessary at these Times; but then you are to make Use of a double-headed Roller, and placing the Middle thereof on the Side opposite to the Wound, you bring one End over one Way, and the other contrary ways, continuing thus as many Circumvolutions, as the Case requires, and beginning rather from below, at least on the middle Part of the Wound, which having, after this Manner, surrounded three or four Times, you may finish the one End below, and the other above.

In Parts less capable of *Bandage*, I have at some Times successfully applied a cross Strap of some *sticking Plaster*, such as the *Adhæsivum* in *Bates's Pharmacop.* set forth by Mr. *Shipton*, which has brought together, and secur'd the Lips of the Wound close, especially, where there is little Discharge from the same; and indeed in all the transverse Wounds, where the Roller cannot be so serviceable as in the former Sort, I would always recommend either them, or the dry *Suture*, whose Place, they in some Measure, may be brought to supply, for assisting the Stitches, and preventing of their tearing their Way out.

Since I have made Mention of the *Roller*, that necessary Part of the *Apparatus*, in dressing of Wounds in general, it may be expected, I should enlarge upon the diverse Kinds thereof, which, from their several Intentions, and differing Ways of Management, received from the Antients diverse Appellations; thus one was named *conglutinative*, like that with the two Heads first mention'd, where the Wound was Length-ways of

the Limb; a second, *retentive*, which seemed only directed for securing the Dressings underneath; a third, *expulsive*, beginning from below, and so going upwards, so streight as the Patient could suffer it; a fourth, *Apostematis inhibentia*, which seem'd to supply the Place of a *Defensative*, above the Wound, supposedly to intercept the Humours falling down upon the Part, and prevent *Apostemation*: A fifth, *Apostematis facientia*, which was so streight, as by exciting *Pain* and *Fluxion* on the Part, the Humour might be thereby, as it were invited, and an *Abscess* promoted, which was slack in coming forward.

These, I say, with others of the like Kind, more specious than truly advantageous, I pretermitt; because the single or double-headed Roller differently managed, as the Prudence of the Artist, rightly considering all Circumstances, shall direct, will sufficiently answer all the proper or necessary Intentions; and in the treating of particular Wounds, we may likely have Occasion to give some more particular Directions about the same; at present only farther remarking, that they are to be cut out of Cloath, neither new, nor quite worn out, free from darning, and especially hard Seams, as also from the over-officious Diligence of the good Women, the Overcasting; having their Length and Breadth well suited to the Compass of the wounded Limb, or other Part, together with the Number of their intended Circumvolutions upon the same. Thus from a Finger's Breadth, and half Yard long, they are requir'd to that of a Hand's Breadth, and half a Dofen Yards in Length, according as the *Finger, Wrist, Arm, Leg, Thigh, or Trunk* of the Body, shall want to be therewith encompass'd; the equal and artificial Management of all
which

which, I must needs say, discovers a *Proficient* in the practical Part of *Surgery* from a *Pretender* to the same, as much as any Thing else.

When the *Flux of Blood* is restrain'd, extra-^{Agglutina-}
neous Bodies [if in the Way] remov'd, and the ^{ting Bal-}
Wound, so requiring, thus stitch'd up, the ^{sams for} fourth
Intention calls for some proper *agglutinative*, or
vulnerary Balsam, with which to assist Nature
in cementing of the same. And here we have suf-
ficient Plenty, many of the *natural Balsams*, and
some of the *Gums*, being serviceable at these
Times; among the former the *Balsamum Toluta-*
num, *Peruanum*, *Gileadense*, *Cobaiba*, as among
the latter particularly and very singularly the
Gum. Elemi, which is a prime Ingredient in
the famous *Liniment of Arcæus*.

Of *artificial* ones likewise, there are as great
Variety; for as before we observed, each Per-
son to boast of his particular *Styptic* for restrain-
ing the *Hæmorrhage*, or *Flux of Blood*; so no
less of their *vulnerary Balsams*. Thus as from their
Virtues, the one is called *Mirabile*, another *Cæ-*
leste, a third, *Polychrestum*: So from their *Co-*
lours, we have a *Balsamum aureum*, *Citrinum*, *ni-*
grum, *cæruleum*, *viride*.

For my own Part in twenty Years and up-
wards, I have rarely used any other than the
foresaid Liniment of *Arcæus*, and the *Balsamum*
Terebinthinæ, with this latter sometimes mixing
a little *Ol. Hyperici*, in the hot and dry *Intem-*
peries, and adding to the former a somewhat lar-
ger Proportion of the *Gum*, than is found usual-
ly in the Composition of the Shops, or entirely
leaving out the *Axungia*, and adding a little of
the *Ol. Hyperic.* in its Place: However, in this
Matter, every Man may please himself, provided he
is well assur'd by Experience, that his Medicine will

answer the Intention, as well as that of another Person.

The following are recommended by some of our best Practitioners.

Hildanus deservedly praiseth this simple one.

℞. Ol. rubri & Crassi *Terebinthinæ*, violento igne destillati, ℥ij. Gum. Elemi ℥℞. Solve gradatim super ignem, & coletur pro usu.

And this, saith he, I use also in Ulcers after Digestion, and in *Fistula's*, after Mundification.

By this Ol. *Rubrum*, 'tis plain he means the same with our *Balsam. Terebinth.* which is that thickish rubicund Oil, coming over the Retort, after Distillation of the Spirit, the Fire being for that Purpose increased. This Balsam is now drawn, and sold by the Chymist for the Surgeon's Use; which I have rather remark'd, for that, there are other Balsams, and good *Vulneraries* too, some of them, that go by the Name of Balsams of Turpentine, prepar'd ex *Terebinth. Ven. Gum. Elemi*, Ol. *Hyperic.* to which are added the Pulv. *Mastiches*, *Myrrhæ*, *Aloes*, or the like; some Forms of which you have in the Translation of the old *Pharmacopeia Lond.*

Mr. Thomas Page, a Quondam Master, and a worthy Member of your Company, allowed of all an excellent Artist, used frequently this following.

℞. Liniment. *Aræi*, ℥ij. *Terebinth. Ven.* ℥j. Ol. *Hyperic.* ℥℞. Myr. *Aloes Mastich.* ā. ℥ij. Sang. *Drac. Boli Ver.* ā. ℥j. Spir. *Vini cum Flor. Hyperic. bene tincti ac saturati* q. s. M. f. Unguentum.

This seems to be borrowed from Dr. Read, with some little Variation and an Omission of the Pulv. *Iridis Florentini.* The

The following also of Mr. *Wiseman* is well enough compounded.

R. *Tereb. Ven. Resin. Pini, Ol. Hyperic. ā. Zij. Sarcocol. Myrr. Thuris ā. ʒiʒ. Cerae, q. f. pro Consistentia Unguenti.*

Sylvius extolls the *Bals. Sulph. Terebinth.* alone above all others, some mix the same with *Arceus's Liniment*; but I shall not trouble you with more *Formulae*, since *frustra fit per plura, quod fieri potest per pauciora*: However, as to their Use, I shall leave you the following Cautions.

1. That none of these *Agglutinatives* are applied in Wounds complicate with Contusion, or which are not likely to be healed by *σύμφυσις*, call'd, as we before took Notice, by the *first Intention*, which are generally the simple incised Wounds of the Skin or Flesh; nor in such, unless you are likely to be assisted by that *Balsam of Balsams*, a good *Balsamic Blood*, without which, all others, whether *Natural*, or *Artificial*, will do little Service, and with which alone, many seemingly desperate Cuts are oftentimes cemented; the Blood of such Persons serving not only as a *Styptic* to stay the *Hæmorrhage*, but a *Balsam* also to heal the Breach: And the Feats that are ascribed oftentimes to the famous *Sympathetic Powder*, it is my Opinion, have been brought to pass solely by this *Balsam*, tho' if the Powder were made Use of, the same has run away with the Credit of the Cure.

Briefly, in all Wounds that may happen to require *Suppuration* or large Digestion, you must forbear these *agglutinating Balsams*, at least, till such Points are gain'd; for which End that common *Digestive* of the *Terebinth. cum Ovi. Vitello*, or the *Liniment of Arceus*, with, or without the

*A good
Blood the
best Balsam
for Wounds.*

the *Ol. Hyperici*, conduce as well as any others.

Secondly, that the Way of Application be by an armed Probe, or Feather, which is still better, dip'd in the *Balsam*, first warmed in a Spoon, and therewith besmearing not only the Lips or Edges of the Wound; but letting, where the same was deep, some Parts thereof sink down between the Stitches made therein, over which a suitable Pledgit faced with the *Linnim. Arc.* a Plaister of *Diapalma* to retain the same, with a soft Compress and *Bandage*, where the Part will admit, on the Outside of all.

When the Discharge is inconsiderable, once in a Day or two may be sufficient to inspect, and renew the Dressings; but if much *Quitture* flows, it must at least once a Day be look'd upon, and the Lips gently compress'd, to get out the same, lest the outside Edges of the Wound happen to agglutinate, a thing not uncommon, whilst the Bottom is still disjoin'd, and full of Matter, and from whence Apostematation, also a Necessity to cut out the Stitches, if not to dilate the Wound, at the best proceeding as in contus'd Wounds, or *sinuous* Ulcers dilated, or such as having Loss of Substance require *συσάφνωσις*, which is call'd healing by the *second Intention*, that is by *incarnating*, or generating new Flesh: But this is sometimes owing to the too slight Hold you have taken with your Needle, leaving the Bottom of the Wound disjoin'd, whilst you close it only at the upper Edge, or for Want of suitable Compress and Deligation.

If then, whilst you are thus treating of the Wound, you find your Stitches to give Way, and cutting through before the Union is effected, which is usually accomplish'd in a Week's Time,

Time, or thereabouts, it may be necessary to secure the gaping Lips, either by the *dry Suture*, before described, or the Cross Strap of *Emplastrum adhaesivum*: Nay, if there be Room for the same, to make fresh Suture in some other Parts; but when it so happens, that notwithstanding your Endeavours, the Putrefaction increasing together with the *Pus*, you cannot this Way conjoin the Lips of the Wound, you must then let go your Stitches, and fill up the Cavity of the parting Lips, with soft Dossils dip'd in the warm Liniment of *Arcaeus*, and after Digestion, proceeding to deterge or cleanse, as in contused Wounds will presently be observed.

The last Intention we laid down for the Cure The Symp- of Wounds in general, was that of obviating the toms of attending Symptoms; such principally are Pain, Wounds and its Concomitants Fluxion, or Tumour, In- in general, flammation, Symptomatic Fever, Watching, Syn- how pro- cope, Convulsion, and sometimes Palsy. vided for.

In Regard to the first, I mean the Pain, Phlebotomy or letting Blood, especially if the Wound bled not freely of it self, may be found expedient; by which not only the ensuing Flux of Humours will be in some Measure call'd off, or averted, but the Circulation thereby more regularly carried on, the Fever also prevented; after which let the Parts all round be embrocated with some lenient repelling Anodyne Oil or Ointment; such as the *Ol. Rosar. cum Aceto*, the *Oleum vel Unguentum Sambuc.* Where the Pain and Inflammation are great, Cataplasms are prescrib'd of the *Mica Panis cum Vitellis Ovorum*, or prepar'd, as we directed in the Beginning of the *Phlegmon*; but these however lenient and anodyne, are too relaxing, and in the stitch'd Wounds, I think not so proper, for that by
their

their Humidity they may retard the Agglutination, and rot the Suture: Yet gentle Fomentations may be admitted, prepar'd of the milder *Discutients*, mixt with *Restringents*: A Stuph wrung out of warm Claret, has sometimes serv'd me upon the like Occasions.

For *Overwatching* and *Inquietude*, a *Paragorick* may be sometimes allow'd at the Hour of Rest, as thus.

R_c. Aq. flor. Paralyf. ℥i℥. vel ℥ij. Syr. de Meconio ℥℥. vel ℥vi. secundum Vires ac etates, Aq. Pæon. C. ℥i. vel ℥ij. M. f. Haustus.

But before you give this or any other *Hypnotic*, you must always take Care to empty the Bowels by the common emollient Clyster, or some gentle Lenitive of *Cassia*, *Diaprun. solut. Elect. Lenitiv.* taken by the Mouth, which, according as the Patient happens to be costive, is to be repeated.

The *vital Indication* also must not be forgotten, proper *Cordials* being ready at hand, in Case of fainting from Loss of Blood or *Pusillanimity*, which in the Absence of the Physician, may be compounded *ex Aquis Molissæ Buglos. Borag. Ceras. Nigr. vel instar, & loco Omnium, ex Aq. Lactis Alex. cujus ℥℥. addentur ℥ij. Aq. Angel. comp. Pæon. C. Mirabil. Stephani vel aliæ similes cum tantillo Sacchari albi chrystalin. ad placitum edulc.* Or a Pearl Julap may be prepar'd thereof, by putting in ℥j. of the *Margarita præp.* or omitting both the Pearl and Sugar, in the same Composition may be dissolved a Drachm of the *Confect. Alkermes*, with half an Ounce of *Syr. Caryophil. vel de Cort. Citri.* Of these may be given 3, 4, or 5 Spoonfuls at any Time, when faint or languid.

The

The *Fever*, which at these Times is *Symptomatical*, will be provided for by the *Regimen*, which we shall now take Notice of, having first hinted to you, that the most formidable Symptoms attending these Accidents, are the *Convulsion* and *Palsy*: The first most commonly owing to some *nervous* or *tendinous* Part hurt, the last to the Division or Compression of a single Branch or *Plexus* of the Nerves, conveying both *sensitive* and *locomotive* Power to the said Parts: Of both which we shall take farther Cognisance, when we speak particularly of the Wounds of these Parts; in the mean Time we must not forget so material a Point as that of *Diet*, and the other *Non-naturals* so called by Physicians, on which I can assure you great Stress is laid at such Times, and without which in some depraved or ill Habits of Body, even the slightest Hurts have often proved fatal to the trespassing Patient. But here also I think we shall not need to be particular, having formerly discoursed of these Matters, when we treated of the *inflammatory Tumours*: The *Regimen* being now exactly the same, and with the like Proviso in allowing somewhat to Old, tho' Evil, Customs, whether we respect the *Air, Meat, and Drink, Sleep, Excrement, Passions of the Mind and Rest*: As to the last of which especially, let it be noted that we mean not only the Body in general to be kept still and quiet, but the wounded Limb particularly, which is to be so placed as may give least Occasion for Fluxion of Humours to the Part. Thus the wounded Arm, Hand or Finger is to be supported with a Scarf or Napkin: The Thigh, Leg or Foot must rest upon a Couch or Chair, or, which is preferable to both, the Bed. And this

*Regimen of
wounded
Persons.*

is all I have to offer concerning simple Wounds, which are healed by Agglutination of their Lips, without any *intermediate* Substance, a Property belonging more particularly to the incis'd Wound: Nor is it absolutely necessary that each of these should be stitch'd up; since we find many of those cut Lengthways of the Fibres, are by Means of good *Bandage*, and a proper Agglutivative, united without; tho' should I say strictly without any *Medium*, I might possibly mistake; for that the balsamic Particles of the Blood coming between, perform much the same Office as the Joiner's *Gluten* to the two Pieces of a Board thereby conjoin'd.

The Wounds of the Face and Neck, more particularly of the *fair Sex*, where every little Scar is accounted a Blemish to their Beauty, and who usually set a higher Value thereon than any Thing else, are such as most commonly require the *Suture*, together with the large transverse Ones of the Joints, and other Parts of the Body. Some Writers tell us, that a Wound which is not half an Inch in Length requires no Stitch; but if the same be on any Part of the Face, it may notwithstanding admit one.

*Contus'd
Wounds.*

We now come to Wounds complicate with *Contusion*, such as stand in Need of a more discernible *Medium* to repair the Breach, I mean by the Generation of new Flesh, whence their Way of healing is term'd *Syssarcosis*. Of this Kind are not only the Generality of contus'd Wounds, but many of those which are lacerated or torn, where the Stitches give way; also where the Flesh it self is cut off by the Instrument: And here also not only the *Hæmorrhage* is to be stay'd, *extraneous* Bodies, if any lodg'd therein, removed, but the Wound instead of
2
being

being stitch'd up, as in the simple incis'd ones, to be *digested*, afterwards *deterg'd* or cleans'd, then *incarn'd* or fill'd up with new Flesh, and last of all *cicatrised* or skin'd over.

But where the *Contusion* is not very great, the Wound transverse, and gaping open, a Suture sometimes is admitted here also, to bring the Lips nearer to each other, that the Division may be the sooner made up, the Cure thereby expedited, and the *Scar*, tho' not possible to be prevented, made however the less unsightly; whereas on the other hand, if the Bruise is very considerable, as in the *Wounds* made by a *Club*, an *Iron-Bar*, a *Stone* or *Brick*, where there is a very Blunt, or no Edge at all, and the Force inflicting very strong; you must by no Means make a Stitch, for fear of bad Accidents, as *Inflammation*, *Abscess*, *Gangrene* or *Mortification*: Nor indeed would it be to any Purpose, since the contused Lips, whilst the Wound is *digesting*, growing putrid or rottten, together with the *Sutures*, would throw off in *Sloughs*.

Before I proceed farther upon this Subject, I ^{All contus'd Wounds to be digested.} cannot well pass by a modern Pretence to healing even of these Wounds more expeditiously than heretofore, without waiting for their *Digestion*: An *Hypothesis* advanced, I can't say how much to the Author's Credit, but, I think, very little to a publick Utility; I wish I could say it hath not prov'd Pernicious. Having formerly made Experiment of this famous *Vulnerary*, I found it would not answer, and was therefore forced to change it for a good old *suppurative* or *digestive* Medicine, lest my Patient should have seen Reason to have chang'd his Surgeon.

With-

Without envying the Author his great Discovery, I would caution the young Practitioner that he be not drawn into Mistake, by any such *new Luminaries*, lest they prove unto him so many *ignes fatui*, and bewilder his Understanding, to the Risque of many Limbs, as well as Lives intrusted with him: But that he keep in this Respect to the good Method of the antient, as well as that of the best Practitioners at this Time, in these *contused Wounds*, to forward all he can, their *Digestion*, without which he must expect no Ease or Safety either to the Patient, nor yet any Advance to a Cure, unto which this truly is the first Step.

Digestives.

I think it needless to recite many Medicines for this End, the old one *ex Terebinth. cum Ovi Vitel.* mixt up with a little *Unguent. Basilicon*, especially in Flesh-Wounds, is still in Request, but ought to be made fresh, when Occasion calls for the same.

Arcaeus's Liniment with more or less of the *Basilicon*, as the Part would allow, with a little of the *Balsam Terebinth.* for the *nervous Parts*, also the *Ol. Hyperici* in some others, melted down therewith, have generally served my Purpose; and when the *Gleet*, *Sanies*, or *Ichor* usually flowing from the Mouths of the Vessels, or shed in the Interstices of these contused Wounds, is changed into a more kindly and laudable *Pus*, the Signs of which we are told are, that the same be *album leve & æquale*, I have then sprinkled a little *Præcipit. rub.* on the loosen'd or separating *Sloughs*, where I have found them large and thick, or mixt the same with my *Digestive* when superficial, which hath yet farther advanced the *Digestion*, kept down luxuriant Flesh, and served also excellently to *deterge* or cleanse
the

the Wound, when after to repair the Loss of Sarcotics Substance, the *Liniment* by it self, or with a little *Basilicon*, according to the Nature of the Part, will serve for an *Incarnative*, which may be made still more *Sarcotick*, by mixing the fine Powders of *Myrrh*, *Aloes*, and *Sarcocolla*, especially if the same is difficultly regenerated: But where you proceed rightly in the Use of your *digesting* and *deterging* Medicines, these will be rarely wanted, unless the attending *Intemperies* is over-moist, as in some lax and *leucophlegmatic* Habits, may fall out.

When you have thus repair'd the Breach, or rather a little before the Flesh grows up to the Brims, if the same especially rise up too fast, there remains now only to induce a *Scar*, or in other Words, to dry up the Superfice of the *Wound* or *Ulcer* into a new sort of Skin or Cover, the old one not being recoverable: But when the incarning proceeds slowly, it may be permitted to lie even before you set about its *Exsiccation*.

In order to this End, diverse *Epulotics* have been invented, among which the compounded ready prepar'd in the Shops, are the *Unguent. Desiccativum Rubrum*, *de Calce*, *de Tutia*, *Dia-pompholigos*, and to all which, as I have intimated in my Treatise *de Morbis Cutaneis*, I think I may very justly give Precedence, my *Ceratum de Lapide Calaminari*, there published.

But if more drying Medicaments are wanted, the fine Powders of the *Lap. Calam.* it self, and the *Lap. Tutie* may be lightly strow'd round the Edges, from whence all good Skinning first of all begins; at least should do so, the said *Cerate* being laid over as a Plaister: Or which at some Times better answers than all others, and is truly

worthy to be taken Notice of, a Pledgit of dry Lint.

This also failing, you are carefully to consider the Condition of your Wound, and the Nature of the Flesh arising therein, whether it be not too pappy, soft, or spongy, as happens generally where the Bone underneath is concern'd, or some *Sinus* lies conceal'd. If the Basis be sound, and your Superstructure rotten, you are to correct this spongy Flesh, strewing thereon your *Præcipit. rub.* that a firmer may grow up in the Place: Or if a *Sinus* be discover'd, the same must be laid open, that you may come at your Work. If the Bone be concern'd, making Way also to the same, as we shall direct in the *sinuous* and *carious* Ulcer: But if neither of these are your Hindrance, only the moist *Intemperies* interrupting; you may after purging, and correcting such Intemperature by a proper physical *Regimen*, have Recourse to the more exsiccating Topicks: Such are a gentle touch of the *Vitriol* and *Alum* Stones, or a Pledgit dipt in, and gently express'd from their Solutions: Also a strong *Aq. Calcis*, a Solution of *Crollius's Lapis Medicamentosus*, but of this more hereafter when we come to treat of *Ulcers*.

Symptoms
of Wounds
contus'd.

The Symptoms accompanying these *contus'd Wounds*, are of the same Kind as the former, but more dangerous by Reason of the Contusion, which subjects them not only to greater Pain, Fluxion, and Inflammation, but thereby endangers Abscess or Apostemation; and which is still worse, Gangrene and Sphacelus, or Mortification, which will oblige the Artist to a more careful Inspection, to proportion the actual, as well as the potential Heat and Strength of his Digestive to the Sense of the Part, to embrocate

all

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all round with some *anodyne* Oils or Ointments, in order to take off the *Tention*, to comfort or cherish the native Heat, and breath forth the Humours, by hot Stuphs express from a *discutient Fomentation*; convenient *Bandage* also, where the Part will allow, to intercept or moderately repel the Influx, with a suitable Compress after *Digestion*, to unite any Sinuosity, or hinder Matter lodging in the Parts: In a Word, if *Abscesses*, *Gangrene*, or *Sphacelus* should ensue, to proceed as in our first *Section* was directed, concerning the *Phlegmon* thus terminating.

I shall not need, I think, to enlarge farther than I have done already, as to the *Regimen* in the *Non-naturals*: For as to *Diet* more particularly, if in the simple Solution of Continuity, we directed that the same should be what our antient Authors call *Tenuis*, it will follow, that in those more complicate, and subjected to more dangerous Accidents, it must be still *Tenuior*, if not *Tenuissima*, allowing something to *Custom* that *second Nature*.

In regard to the general *Prognostic* of these contus'd Wounds, there is one thing especially worth the young Practitioner's Observation, that is, where great Tumefaction just before attended, if the same sinks, or of a sudden disappears, the Wound of a livid Aspect, crude and undigested, the Flesh pappy, and a blackish Sanies, like the serous Humour shut up in the Vesications of a gangren'd Part, issues out of the same, there is always great Danger not only of the Limb, but the Life also of the Patient.

In the Number of contus'd Wounds, we may justly reckon those made by *Fire-Arms*, cal-
Gun-Shot Wounds.
 led *Gun-Shot*, of which the Antients had such a mistaken Notion, as to fancy a certain Venom

or Poison did accompany the same; and upon this Conceit, tormented the poor Patient with their fiery spirituous and hot Remedies, under Pretence of correcting the Malignity therein conceal'd: By which many in those Days were spoiled in their Limbs, whilst others lost their Lives through the like Ignorance: When a Wound in it self otherwise inconsiderable, was by this way of Management inflam'd, the Symptoms heighten'd, and a Gangrene or Mortification brought on, under a foolish Expectation of obviating the same.

Whereas had they rightly apprehended the Nature of the Ingredients, the *Niter*, *Sulphur*, and *Charcoal*, either separate or conjunct, when it is called *Gun-Powder*, together with that of the Bullet, which is Lead most commonly or Iron; they might easily have understood there could be nothing more than the Force or Violence at the Time of Explosion given to those Bodies, that could make the Difference between them and other contus'd Wounds, the Heat of the same being scarce, if at all perceptible; so that neither is there any burning in the Case, where the Subject is out of the Reach of the fired Gun-Powder, or stands not either at the Muzzle of the Piece let off, or over the Pan where the Flame is first inkindled. It was indeed probable enough, that the Sight of these Wounds, as Mr. *Wiseman* observes, looking blueish or livid, not from the Heat of the Bullet, but the sudden Compression of the Vessels round about, and consequent Stagnation of the Blood therein, that led them into those formidable Apprehensions of *Venom*, *Gangrene*, and *Mortification*.

It must be own'd that the Wounds of this Kind are usually attended with the most unhappy Accidents and dreadful Symptoms; but these not owing properly to the Nature of the Ball or Powder, but to the Splinters and Fragments of extraneous Bodies, which together are impel'd, and shiver the Bones, as also to such Shivers of the Bones themselves, the Ligaments and Tendons being likewise sometimes torn asunder, as well as the musculous Parts; which will require the utmost Diligence, not only in removing foreign Bodies, but such Fragments of Bones as are entirely separate, and lie pricking the Parts adjoining, encreasing the Fluxion, and hazarding *Convulsion*, *Gangrene*, and *Sphacelation*, at the best *Apostemation*, whilst other Parts of the fractur'd Bones are carefully reduced into their proper Places, and there secur'd as in *Fractions* complicate shall be hereafter observed.

From hence it will appear, that the chief Regard, after the drawing forth *extraneous* Bodies in these Accidents, is, overlooking the supposed Fire or Venom, to promote their *Digestion* with some proper maturative Application, such as the old one *ex Terebinth. cum Ovi Vitello*, to which may be added in dry Habits, a little *Unguent. Basilicon*, also the *Ol. Hyperici*, or when seated among the *nervous, membranous, tendinous, or ligamentous* Parts, the *Balsam. Terebinth.* in Case of greater Putrefaction, especially in moist Habits, its Oil also in suitable Proportion to the Sense of the Parts hurt.

After *Digestion* of the Wound, in order to *deterge* or cleanse away the *Sloughs*, you may sprinkle on the *Præcipitate*, or mix the same with your *Digestive*, then arming your *Dossils*, *Pledgits*, or large *Tents*, in Case of Perforations, with

the same you may dip them in the warm *Liment of Arcæus*, which in these Cases, and at such Times, is no despicable Balsam, to incarn or fill up with Flesh, proceeding farther to cicatrize, as in other contus'd Wounds we have directed.

The Means by which to draw forth Bullets, or other foreign Bodies, with certain Cautions about the same, we have already also laid down at the beginning of this *Section*.

HIST.
xliv.

A Countryman, at the Close of a Winter-Evening, being come within Sight of the Town's End, was call'd upon by a Foot-Soldier upon the Causeway to stop; at which, looking towards the Place, and seeing a Musket presented, he spur'd on his tired Jade to get clear; whereupon the Foot-pad jumping into the Road, discharg'd his Piece, but not finding the poor Man drop, he made over into the Fields for his Escape: The Countryman was first dress'd by a Barber, pretending however [as they do most of them upon the Skirts of the Town] to the Practise of Surgery: The next Day one of his Friends desir'd me to go to see him at his Inn; where upon Examination, I found the Ball had enter'd just above the Spine of the *Scapula*, and came out through the upper Part of the *Clavicle*, which it had shiver'd in making Way.

The Wound had been plug'd up with Tow, dipt in some green Balsam, and hard shov'd in from one Orifice to the other, which being drawn forth, one might easily see Light through the Cavity: The Orifices look'd each of a livid Complection; however not at all terrified thereat, when I had fomented the Parts with a warm Stuph or two, express'd from Wine call'd for on that Account, having made up a soft Tent

of Lint of fit Size, about an Inch or somewhat more in Length, spread round with the *Terebinth. Ven. cum Ovi Vitello*, I then dipt the same in a melted Mixture of *Liniment. Arcæi*, and about a fourth Part of its Balsam [with a Feather moisten'd therein, dropping first a little thereof into the Wound] and introduced it lightly by the Orifice behind, but by no Means distending the same therewith. After this, endeavouring to set the fractur'd *Clavicle*, upon sinking the Ends of the Bone, some small Splinters lying in the Way, I took out with my *Forceps*, and replaced the rest: Then covering the Bone with dry Lint, and the same *Digestive* on the outside, I fitted a gentle Plaister-Compress to keep it down, and a double-headed Roller of sufficient Length to cross from each Shoulder, and secure it.

After the third Dressing, the *Sloughs* began to loosen, and *Digestion* to appear round the Edges of the backward Wound, which being rather slanting, and more depending than the other, favour'd the Discharge of Matter, and from whence we had great Plenty thereof at about ten Days end; whilst the Wound upon the *Clavicle* inflam'd, and was very painful, so that not suffering the *Compress*, neither yet so strait a Bandage as the starting Bone requir'd, I contented my self with a retentive one for some few Days, continuing the *Digestive ex Linim. Arcæi & Bals. Terebinth.* till the Inflammation going off, and the Wound *digested*, I tried a second Time to depress the rising *Clavicle* by a Compress, and stricter Deligation. Yet the Wound being so exceeding tender, by Reason of some angular Parts of the broken *Clavicle* not suffering, I was forced to desist, and rest

content with the easier Rolling, leaving the Work to *Nature*, the backward Wound being *mundified* with the *Præcip.* and *Liniment*, fill'd gradually up with Flesh; nor did I use any *vulnerary Injection*, so called, and practis'd by some in the like Cases all the Time; only to prevent the too hasty closing up of the Wound, in Case any Fragment of the *Scapula* should be shut in, and an *Abscess* occasion'd, I pass'd up a small *Cannula*, but finding no Discharge thereby, after a Fortnight's Time, the same was extracted, and the Wound heal'd up presently after, without at least any visible *Exfoliation*. But the *Clavicle* being more in Sight, and much discolour'd, there was a Necessity I perceiv'd of expecting either a *Desquamation*, or the coming away of Part of its whole Substance, which occasion'd a much longer Time; for after waiting upwards of six Weeks, continuing my dry Dressings and Digestive, I drew forth a large Piece of the same, separated in its whole Substance: The Head of the *Humerus* inclining to fall inwards, I contriv'd a Tin Plate quilted, and so placed under the Bandage as to keep out the same, at least to prevent it falling more towards the *Jugulum*, till the new Flesh was harden'd into *Callosus*. This he wore for several Weeks after the Wound was heal'd up, which proved a stubborn Work, painful, and subject to Fluxion, and not suffering the least Pressure till the Bone was extracted. It was many Months before he recover'd any tolerable Use of the Arm, and is still, as he complains, tied down and impeded as well in a free Elevation thereof, as also in the putting his Hand behind him, being in advanced Years, the Change of the Seasons giving him also some Pain and Disturbance round about the Shoulder.

Of

Of some Affinity hereunto are the Wounds ^{Wounds la-} we call *lacerated*, especially those owing to Falls ^{cerated.} from on high, against a ragged Pavement or Flints, also the Wheel of a Coach or Cart, the Kick of, or Fall from a Horse, with great Violence in his Speed.

At which Times, having carefully cleans'd the Wound from any Dirt, Sand, Gravel, or whatever may be got into the same, with a Sponge wrung out of Wine; you are then to consider, being first assured there is no Fracture, if there be any Probability of re-uniting the torn Parts, or the Hurt having been some Hours receiv'd, the same also divided in such Manner from the Sound, as to be now in a perishing Condition, it is by no Means practicable, and there be not a necessity of Excision before you can proceed: If the *first*, you are to lay down the musculous Flesh or Skin in their proper Places, or where they have been torn from, when by several Stitches proportionate to the Size of the Wound, you endeavour to retain them there, not so much in Expectation of a *Symphisis*, or Agglutination of their Lips, which is scarce attainable, as of their Union underneath: For which Reason you are not to strain your Suture so close as in simple Solutions, or incis'd Wounds, healing strictly by the first Intention, for then they would presently tear through; but leaving sufficient Space for the Discharge of Matter, you are to lay down soft Dossils of Lint, dipt in the warm Digestive of *Linimentum Arcei cum tantillo Balsam. Tereb. vel Olei ejusdem, si minatur Sphacelus*, in the Interstices thereof, observing at the Times of Dressing, to make use of some spirituous Fomentation, or Flannels express'd from hot Wine, which does as well,
not

not forgetting proper Compress and Deligation, which more than any Thing besides contributes to the Union, and consequently the Curation of these Wounds: But if the *second*, you are immediately to divide so much of the said Flesh or Skin as you shall find now mortified, replacing the rest if the Whole is not already perish'd, and hastening *Digestion* proceed in repairing the lost Substance, as we have before, and shall perhaps hereafter have Occasion to observe.

And upon this I take leave to put you in Mind, that where great Portions of the Muscles, together with their Blood-Vessels and Tendons, are so separated as to endanger the Limb, it is your Duty to call presently for some of the *antient Masters* or *Wardens* of your Company to your Assistance; where after mature Deliberation, if it be found necessary, you are forthwith to proceed to *Amputation* of the Limb, before your Patient's Strength and Spirits are exhausted, which by the Delay only of some Hours, but much more a Night or Day, the Pain and Flux of Humours encreasing, bring on *Lipothymy* or Fainting; or else *Rigours* with *Convulsion* succeeding, portending Death, quickly after carry off the Patient, who if dismember'd presently might have had a Chance that Way of compounding for his Life.

These Accidents happen more commonly in Sea Engagements, where by Means not only of the single *Bullet*, but *Chain-Shot* and *Splinters* from the Decks, or other Parts of the Ship, not only the *Muscles*, *Ligaments*, and *Tendons* are torn asunder, but the *Bones* miserably shatter'd, with *extraneous* Bodies lodged betwixt the Joints, and in other Parts, where not being in Condition to come at, or to be extracted, they lie
prick-

pricking the *Membranes*, and other *nervous* Parts, exciting in little time after, those deadly Symptoms, which now render the Operation abundantly more hazardous than it would have been in the Heat of Blood and Action; and for want of which, thus timely enterpris'd, it is beyond Controversy, that many a brave *Sailor* and *Sea-Commander* too have lost their Lives, whilst others in haste and hurry, through Ignorance, and sometimes the want of good Convenience, have rashly been depriv'd of theirs, who under better Management might have been preserved: And this I have known confess'd by some of those, whose Post it was to supervise the Fleet: However, as a Matter not so directly in the way of our present Discourse, which is more particularly intended for the young Practitioner here at Home, we shall pretermitt all farther Remarks upon the Practise at Sea, and prosecute our Subject.

There is yet another Kind of *lacerated* Wounds, as we hinted at the beginning of this *Section*, which are made by *Nails*, *Tenterhooks*, or such like, tearing their Way through either the Skin, or therewith also some Portion of the Flesh; which Wounds, tho' not so dreadful as those last mention'd, yet if the *nervous* or *tendinous* Parts happen to be laid bare, or thereby injur'd, as by stretching or tearing of the same asunder, very grievous, and often dangerous Symptoms do ensue.

In the Cure whereof, when the Skin alone, or outward Teguments have suffer'd, the same being return'd to its Place, must be sticht up, as was directed for the incis'd Wound, in like Manner with which, where the Habit of Body is good, and the Blood *homogenous*, or free from
any

any morbid Taint, many of them will unite, and heal by the *first Intention*, some proper *Agglutinative* being applied thereto, assisted by as suitable a Bandage.

But when by Reason of the Pain and Fluxion thereby stir'd up, notwithstanding your Endeavours to avert the same by gentle *anodyne Embrocations*, with other repelling or discutient *Topicks*, together with Bleeding, and the internal *Regimen*, the Sutures fly; or through Matter gathering underneath, you are under Necessity of dividing them, and making Way for the Discharge; 'tis however still your Duty to promote the Union all you can, by leaving some of them remaining: Or where this cannot be obtain'd, by Compress well suited to the hollow Parts, and Bandage to press forth the Matter to the Sides, and repair what is then wanting at the Edges, by the way of *Incarnation*, as in other Wounds requiring Generation of new Flesh.

*Tendons
lying bare.*

Again, if it so falls out, that the Flesh it self is also torn, the *Tendons* laid bare, and appearing out of the Wound, these also must carefully be replaced with their Coverings, and as much as possibly defended from the Injuries of the Air, that the Parts to which such *Tendons* appertain, if undivided, may not lose their Motion, as they would if their whole Substance happens to *slough* away, to which nothing renders them more liable than the negligent exposing them at the Times of Dressing, or dressing them with some greasy slabby Application: For which Cause should their outward Fence, by breaking away of the Stitches, or whilst the Wound is digesting, expose any Part of them, you are no sooner to take off your Dressings, but the same Instant to have a warm Stuph ready

dy at Hand, wrung out of Wine, or a Fomentation prepar'd from a Decoction of the *Cephalics*, such as the *Fol. Beton. Salv. Rorismar. Majoran. Flor. Anthos ac Lavendul.* or such like: Three or four of which being applied while your Dressings are got ready, you may cover the tendinous Parts with a soft Pledgit dipt in the *Mel. Rosar.* with a third or more of the *Tinct. Myrr.* then filling up the rest of the Wound with soft Dossils moisten'd in the warm *Liniment* and *Bals. Tereb.* hasten the incarning of those so useful Parts, dispatching what remains as we have before directed.

If when you have done your Endeavours, yet in spite of all your Care and Caution, as it sometimes happens, especially in ill Habits, and ill condition'd Wounds; these tendinous Parts being long expos'd, and seeped in Matter, are hereby loosen'd in their *Compages*, the incarning also being slack in covering them, some Parts grow soft, and as it were putrid, and separating from the rest, cast off in *Slough*; or the Body of the *Tendon* being alter'd, seems likely to undergo this Misfortune: At such Times, I say, you are to do all you can by your Art; but where you find this Prospect, be sure you secure your own Reputation, if you cannot that of the Use of your Patient's Limb, hereby indanger'd, by timely acquainting him what is like to be the Result of his Mischance.

Of the *Wounds* of the *Tendons* themselves we shall take farther Notice, when we come to those particularly of the *Joints*.

Wounds made by *poysonous Animals*, or *envenom'd Instruments*, we have taken Notice of in our Tract *de Morbis Cutaneis*, to which we must refer for avoiding Repetitions.

HIST.
xlv.

A poor Fellow pursued by *Bailiffs*, and making his Escape over the Rails in a Neighbour's Yard, as he was hastily letting himself down on the other side, was catch'd by a *Tenterhook*, entering a little below the *Axilla*, which by the Weight of his Body appending, tore its Way not only through the *Skin*, but the *Flesh* of the *Biceps* Muscle, the Tendon whereof lay bare in the Wound, and the *Mediana* ruptur'd, whence great *Hæmorrhage* ensued. Passing by at that Instant, and inquiring into the meaning of the Concourse, I was known to one in the Crowd, who civilly accosted me, and earnestly beg'd of me to walk into the House to assist a poor Man bleeding to Death: Upon which they made Way for me to enter, where I found a Stranger calling about him for Abundance of Things which were not to be had in the Place: The Man still bleeding on the Ground. I immediately order'd that all such as might not be some how assisting, should quit the Room: Then taking off his Cloaths, and cutting off the Shirt Sleeve, with a wet Clout I cleansed away the Blood, in order to take a View of the Wound; which I had the better Opportunity of doing, the Patient falling into a Swoon, and the Flux lessening thereupon, I order'd my Assistant, who acknowledg'd himself no profess'd Surgeon, to keep a Compress I had for that Purpose dipt in *Oxy-crate*, close down with his Thumb on the bleeding Vessel, till I had provided such *Apparatus* as the Place would admit, whilst the Roller was getting ready, and a Bason of Water and Vinegar beat up with the Whites of Eggs, also a Plate of Flower; with my *Forceps* I held a common Stitching-Needle in the Fire till it was so temper'd, as to admit of bending, especially at

at the Point, which being arm'd with Thread, and a little Hook out of my Tweezer-Case laid by in a Plate, setting the poor Man in a Chair, opposite to the Light, supported on each side, I directed the Person who held the Compress to remove his Thumb; when the Patient returning to himself, the Blood again ran forth at the lower Extremity of the torn Vessel, which raising up with my Hook, I passed the Needle underneath, a little below the said Extremity, and made a Ligature thereon, by which the farther Effusion was prevented.

This done, he fell again into a *Deliquium*, but being supported, I took another Needle thread-ed, and drawn through a Piece of *Diapalma* Plaister instead of Wax, which about an Inch from the Top of the Wound, I passed through the Skin and musculous Flesh on one Side, and having placed the distorted Fibres as well as I could, whilst I was entering my Needle through the Side opposite, a strong Convulsion seizing him with great Violence, he threw about his Limbs, so that had I not immediately let go my Needle and Thread, which I had just got through, and given Way, he had certainly torn the same by that Jerk he gave his Arm: But coming again to his Senses, I proceeded with my Sutures after a little Pause; and giving him the Refreshment of a Glass of Wine procur'd from a Gentleman's House near at hand; an Inch below the first, I made a second Stitch in like manner, securing the Tie with a double Knot, after having brought the Lips as nigh as possibly I could with Security to the Suture, and so a third, which having dispatch'd, and finding very little Blood, I laid down only several long and thick Pledgits of dry Lint upon the Wound,
with

with soft Pads of Tow, wet in the *Oxycrate* & *Alb. Ovor.* then sprinkled with *Farina*, and securing all with a moderate Bandage, placing the Arm at an oblique Angle, and pinning the same up in a Napkin; yet before I had dress'd up the Wound, his *Creditor* came in, having Notice of the sad Accident; and finding him in this miserable Condition, was moved so to Compassion, that he freely forgave him his Debt, and promis'd him a Release before he went out of the House, seeming truly under great Concern, and I believe had been highly provoked to do what he had done.

When I had order'd him a gentle *Pacifick* for the Evening, I took my Leave with this Hint to his Friends, that what I had now perform'd was the Part of the *Samaritan*, having bound up his Wounds, and secur'd his Bleeding, but that I expected they would release me of any farther Attendance, especially considering the Distance he lay from me, by getting him into one of our Hospitals, provided for such necessitous *Invalids*. But next Morning to my Surprize, and which, I think, truly a Case not often parallel'd, the *Creditor* came to me, and told me he could not rest that Night for thinking of the poor Man, nor did he believe he should ever have a quiet Day, should he happen to do otherwise than well: Upon which Account as I had thus charitably begun, he requested I would go on, and take him for my Pay-Master; at the same Time presenting me with five Guineas, as my Encouragement, or in Part of Payment; and promising for my greater Conveniency, so soon as the same was practicable, he would remove him nearer to me: Upon which I did engage to attend him, and do all I could for his

Recoꝝ

Recovery; and accordingly, soon after going to him, I found he had been very restless all the Night, with *Rigours* intervening, and sometimes rambling in his Talk.

Taking off the Dressings, I found the whole Limb much swell'd, and beginning to inflame, which I embrocated *cum Ol. Rosar. & Unguent. Sambuc.* whilst some *Liniment* was made warm with a little *Balsam. Tereb.* in which, having faced them with the *Liniment per se*, I dipt my Pledgits, and applied them the whole Length of the Wound, so that some of the same might sink in between the Interstices of the *Sutures*: Then covering all with one large one of Tow, spread over with the said *Liniment*, I gently roll'd up the Arm, 'as the Day before, ordering an emollient Clyster to empty his Bowels, and relieve his Head; and giving farther Directions for his *Diet*, as we have observed already for Persons wounded: The Clyster having done its Office, the *Paregoric* was repeated *ex Aq. flor. Paralys. ℥ij. Syr. de Mecon. ʒvj. aq. Pem. c. ʒij.*

The Day following, which was the second after that of the Hurt receiv'd, I found a great *Gleet* had wetted through all, and taking off the Dressings, perceiv'd the *Tumour* and *Inflammation* still encreasing, threatening a *Gangrene*, the Lips turgid, and the Stitches as it were upon the Stretch thereby, cutting themselves out. So that finding no *Symphisis* like to be affected, I let fly the middle Stitch, and laid in two or three soft Dossils on the Bottom of the now putrid Wound, dipt in the foresaid Mixture, with the Addition of about a sixth Part of the *Ol. Tereb.* and a Pledgit as before, embrocating also from the Wrist to the Shoulder, then rolling him up again.

On the third, I found my Patient somewhat better settled in his Head, visiting now in Company with Mr. *Blundel*, who was call'd in to give us a View; yet was he still restless from the Pain and *symptomack Fever*, suffering likewise by *Spasms*, or convulsive Twitches of the Nerves in the Limb affected, frequently recurring, yet neither *Tumour* nor *Inflammation* altogether so great as the Day before: The Lips still pouted up, but the Dressings came out with some little Appearance of Corruption; and the Bottom as well as the Sides of the Wound, cover'd over with *Sloughs*. Upon which I sprinkled a little *Præcip. rub.* having first well fomented the Limb with an *Elixiviate Fetus*, got ready for that Purpose; then filling up the Wound, which was now gaping, or wide open, by Reason of the lowermost Stitch cutting its Way through, with soft Dossils dipt in the Mixture used the Day before; and snipping some Vesifications which were risen on the Sides of the same, I laid over an outside Pledgit, and encompass'd the whole Arm with a *Therical Cataplasma*, applied as hot as he could suffer it, embrocating from the Cubit to the Fingers, with the *Ol. Lumbricorum* made as hot, with gentle Compress on each side, and suitable Bandage. By the Loss of this lower Stitch, the *Tendon* of the *Biceps* was exposed, which I immediately covered with a soft Pledgit, moistned with the *Terebinthinate Balsam*, the *Ligature* upon the Vessel lying fast.

After three or four Days more, we had a laudable Matter from the Wound, the *Sloughs* separating at the Edges, and the *Gleet* much lessening; so that finding the Part would admit, I fitted a couple of Plaisters-Compresses on each Side,

Side, the whole Length of the Wound, with soft Bolsters of Cloth thereon; and having lightly fill'd up the Cavity, with my Dossils dipt in the Mixture, only lessening the Quantity of the *Ol. Terebinth.* with a double-headed Roller pass'd, as we directed in such like Wounds of the Limbs, we brought the gaping Sides much nearer together: And having so narrowly escap'd a *Gangrene*, as also *Apostemation*, the least we could have expected under those threatening Symptoms which attended the first Week, I began to hope the most difficult Part of our Work was over, tho' he was still infested with the Convulsions; one of which in the Night-time seizing him in his Sleep, haul'd him with so great Violence, that by the Jerk of his Arm, the Ligature which was near upon Separation, being thus hastily torn off, the *Hæmorrhage* was again renew'd; so that his Nurse presently discovering the Accident, I was call'd up in haste, forced to loosen all his Dressings, and whilst his Nurse compress'd the bleeding Wound with a small Bolster as at first, dipt in Vinegar and Water, held close down upon the same with her Thumb, I dress'd up the Wound again, and taking all possible Care of the *Tendon*, clapt on a Button of Lint dipt in the fine Powder of crude *Alum* [carried with some others, along with me] upon the new Breach, and held it close myself for some Minutes: Which, tho' it created Smart for the present, restrain'd the farther Efflux. Over this I laid fresh Compress, dipt in the said *Oxycrate cum Alb. Ovor.* and a moderate strict Bandage for securing all underneath: Directing him as he lay, with his Thumb of the other Hand, to keep a gentle Pressure upon the Part whence the Blood had flow'd.

In the Even of the same Day I visited again, and order'd him another Clister on the Account of his being Costive; also an Emulsion *ex Sem. 4. fr. Sem. Papav. alb. in Aq. Hord.* as directed for the *Erysipelas*, only leaving out the *Gum Arabic* also the compound Piony Water, and doubling the Quantity of the Poppy-seeds; with each Draught whereof he took a Scruple of *Sal. Prunel.* in order to contemperate the Heat of his Blood, and somewhat moderate its Motion: Keeping him still low in his Diet, allowing only Grewels or small Broaths for his Food, and Small-Beer, which he was a great Stranger to before, for his Drink, with three or four Spoonfuls of a Pearl-Julap, to refresh him after his Dressings, or when languid or faint. This Evening he had farthermore his *Anodyne* as at first: I examin'd the outside Bandage, but could not find any Blood had soaked through.

The Day following, finding likewise all Things safe, in Regard of the *Hemorrhage*, I defer'd opening the Wound till the next: When coming to remove my Dressings with all imaginable Caution, first wetting them with a little warm Wine, then gently raising them up, I perceiv'd a Crust induced upon the Vein; to prevent the too hasty digesting of which, I laid on a Pledgit of dry Lint, with another dipt in the Balsam over the bare *Tendon*, which appear'd a little soft and spongy, and lost daily of its bright or silver Hue, as if threatening to *slough* away: Then taking out my Dossils from the Wound above, I found the large and profound Sloughs both on the Edges as well as Bottom, growing still looser, and likely to cast off in few Days: So that altho' our Progress had been somewhat retarded by this new Effusion, yet was the rest
of

of the Wound in good Condition, the upper Stitch still continuing, but something gaping, through which I let fall some of the warm Balsam, with a Pledgit dipt in the same over it : The rest I sprinkled as before with my *Præcipitate*, laying down soft Dossils as formerly, with an outside Pledgit of the Digestive, and with Compress and Bandage dress'd him up again, placing his Arm upon a thin quilted Pad, instead of a Pillow, for fear of keeping it too warm, in a Posture between a Curve and a strait Line, the Elbow making an obtuse Angle.

I designedly omitted the Use of the Fomentation both now and several Days after, lest by its Heat rarifying and attenuating the Blood, the same might again happen to break its Boundaries, and create us farther Difficulties.

But from this Dressing we daily got Ground, the *Eschar* lying fast till the Vessel was incarn'd; the *Sloughs* likewise separating, and the Wound well mundified; the *Præcipitate* was now mixt with the *Digestive*, and the *Ol. Terebinth.* left off: The Dossils being armed with the *Linim. Arcei*, were dipt in some of the same dissolv'd with the *Bals. Tereb.* continuing the Compress on each Side, and placing the middle of the two-headed Roller on the Side opposite to the Wound, bringing one to the Right-hand, the other to the Left; and so continuing the whole Length of the same, making thus interchangeably several Circumvolutions as streight as was convenient to press forth any Matter, and bring the Lips as well as Sides thereof nearer to each other, for expediting the Cure.

When the lower Part of the Wound was thus incarn'd, the Crust cast off together with the *Tendon* seemingly in a *Slough* of its whole

Substance ; and the upper Stitch now rotted away, I cicatrised the same with dry Lint, and my *Cerat. de Lap. Calam.* and having compleated our Work, the Arm, whose Flexion I despair'd of, tho' long time weak, yet after about six Month's Time, by the Help of lubrifying nervous Embrocations, *ex Unguent. Nervin. Ol. Lumbric. Axung. Hum.* and the like, recover'd so much Strength, that he was capable of following his Occupation, which was that of a Victualler ; and could with his lame Arm make a Shift, tho' not so readily as before, to lift up a full Pot of Beer to his Head.

Had a Wound of the same Length and Depth also been made by Incision, there had been no great Doubt of its Union by a *Symphisis*, or the *first Intention* ; and this on Account of its longitudinal Scituation, by which a much smaller Number of the muscular Fibres undergoes a Solution, than in Wounds transverse or oblique either, being forwarded, as we have already taken Notice, by the two-headed Bandage ; but being thus torn and mangled, and great Numbers of them put upon a Stretch and distorted ; no wonder by the Difficulty of replacing them in their former Series or Order, together with the accompanying Pain and Fluxion, we miss'd of the *first*, and were glad to repair the Breach by *Syssarcosis*, or the *second Intention* : Yet considering the vast gaping of the Wound with its great Length, the *Sutures* were justifiable, and their Omission would have been condemn'd, since it was in our Power to have given Liberty, as we did, so soon as we perceiv'd a Necessity of so doing.

The Arm was designedly kept upon a *Semi-flexure*, that in Case of a stiff Joint by *Abcesses*,
or

or Apostemations arising frequently upon such like Accidents, or Loss of its proper Motions, it might be still more useful than at a full Extension, or a direct Angle.

The last we shall take Notice of among of *Punctures* *Wounds in general*, is the *Puncture*, a *Wound* in-considerable to the Eye, and sometimes imperceptible almost thereto, but otherwise mischievous in its Effects, and often fatal.

Hildanus particularly gives us two remarkable Hist. Histories of this Kind, the one of a *Countryman* xlv. *losing his Finger, the other both his Leg and Life, through the Prick of a Thorn, passing by a Hedge side*: But we have Instances enough nearer Home of such as by the Prick of a Pin or Needle, but frequently by the Point of a Lancet in letting Blood, have undergone the same Fate.

'Tis true, that in a simple Puncture on the Skin, or sometime Flesh also of sound Temperaments, *Nature* seldom requires other than her own Balsam, to unite or heal the Breach: However, even here I think it not amiss to apply some mild *Digestive*, at least for a few Days, lest otherwise where the Membranes or Tendons lie close upon, or adjoining thereunto, the Parts happen to inflame, and the Wound as they call it, *fester* and prove troublesome: For if the *Puncture* happen near the *Joints*, among the *Nerves* or *Tendons*, as those of the Fingers or Toes, the Hands or Feet, you must by no Means measure the Degree of Danger by the Smallness of the outward Hurt, but the Nature of the Part wounded underneath; for contrarywise this is often greatest, where the Wound is smallest: Nor have you any better Way, where the Symptoms encrease, such as *Pain*, *Tumefaction*, and *Inflammation*, than to enlarge this little Wound

for the easier Conveyance of proper Medicines to the same; among which the *Liniment of Arceus*, so often recommended, with a few Drops of the *Balsam of Turpentine* melted down together, will be as serviceable as any.

In the mean time let the Place all round about be embrocated with some *anodyne* Oil or Ointment, as the *Ol. Ros. Lumbricorum Ol. & Unguent. Sambuc. Cataplasms* also as were directed in the beginning of the *Phlegmon*: Let him be let Blood to abate the Fluxion, neither let him think it needless that he observe a proper Discipline in his Diet, and Way of Living, for some Days, lest by a Contempt thereof, he pay dear for his Temerity and obstinate Refusal to comply with such Directions.

But if the Symptoms from these Accidents still farther encrease, and threaten *Impostumation*, or if a *Gangrene* ensue, you are to proceed as we have formerly given Advice for the like Symptoms attending that *Tumour*.

The following being an Accident of this Kind, remarkable for some Circumstances attending, I have therefore adjoin'd it.

HIST.
xlvii.

A Maid Servant to a Scrivener, then living in *Bartholomew-Lane*, by a Mischance, as she was kneeling to scour her Irons, felt something prick her a little above her outward Ankle; and examining the Place, perceiv'd a Speck of Blood, but took no farther Notice, imagining some Pin hanging in her Petticoat, had prick'd her: And for two or three Months follow'd her Business, sometimes limping; but disregarding it, till a Cramp, as she thought, seizing her about the Calf of her Leg, and almost continually twitching the Membrane of the *Muscles*, she was forced to keep up for some Weeks, when a *Tumour* appear'd

pear'd on the back Part of the Leg, indurated and inflam'd, which gave a little Alarm to the Family; who apprehending it might be a Matter of great Consequence, and seeming to threaten the poor Maid's Limb, she was sent to the *Hospital* to be taken Care of. Where a *Suppuration* being promoted, an *Abscess* ensued; which being open'd, and the Matter let out, suspecting nothing farther to be enquir'd after, by the Care of the Surgeon the same was heal'd up again, and she return'd to her Service; where after six Months more she began to make the same Complaint of a pricking Pain higher up on the same Limb, so that walking, at some Times she was forced to stop for a Minute or two; and in kneeling would cry out that something prick'd her, till at length the Pain being very acute, and she being persuaded in her self that she felt somewhat deep under the Flesh, on the inside of the Thigh, a little above the Joint of her Knee; she came to me, who feeling upon the Place, whilst with one Hand underneath, I bore up the *Muscles* tight against the Skin; I plainly perceiv'd also with my Fingers of the other, the Point of some hard Body, like that of a Pin or Needle: Then calling in my Servant to assist, whilst he thrust up this strange Body as before with his Hand, and I was farther convinc'd that it was so; I took out my Incision-Knife, and cut down upon the same, making a Wound of about half an Inch in Length, and of like Depth, and searching with the Top of my Finger, could plainly feel it; but the Blood hindring our Sight, and the Wench through Pain altering the Position of her Thigh, I lost it again: Upon which, persuading her to keep her Limb steady, and promising I would not cut her

her

her again, I took the Management of the Muscles into my own Hand, and having with a Sponge clear'd away the Blood, as I kneeled down by her, and forcing the Flesh up as formerly, whilst I wip'd out the Blood, I could not only feel it with my Finger thrust down for that End, but withdrawing the same, with my naked Eye perceive the Top of it : Whereupon, before I now let go my Hand underneath, I call'd for my *Forceps* lying by, and taking hold of the Extremity, found the same insufficient to draw it forth, by reason of its slipping off: So that fearing, by altering the site of the *Muscle*, I should again lose the Sight thereof, I resolved to make some farther Attempt, and having a Tweezer Case in my Pocket, I order'd a Servant to take it out, whilst I kept the said Body still within my View, clapping the Tweezer down, and finding the same placed right for my Purpose, I pressed down the musculous Flesh on each Side, before I made the Gripe, that I might gain the better Hold ; when without great Force I drew out a rusty Needle about an Inch in Length, some Part having been broken off. After which I drop'd in the warm *Balsam* of *Turpentine*, with a Pledgit of *Liniment*, and a Bit of common Plaister, gently rolling up the Limb for Security of the same; and the third Day after, found the Wound united, so as to stand in Need of no farther Application.

This Case, I say, I have inserted as singular upon this account, *viz.* that a Needle entering the Flesh below the Calf of the Leg on the Outside, should after a Year's Time, when all Remembrance thereof was forgotten, be taken out on the Inside of the Thigh ; which must needs be effected [for there was no *Witchcraft*

in the Case] by the Working or Motion of the Muscles favouring its Ascent and Winding therewith in its Passage, till it was turned some how, and stuck fast to the Place it was cut from.

In passing the *Gastrocnemius*, it might probably cross it self, and at one or other of its Ends prick or vellicate the Membrane, by which a Flux of Humour was stirred up, and an *Abscess* raised; after the Discharge of the Matter whereof, if not before the Suppuration, it had again changed its Position, and work'd it self higher up by the *oscillatory* Motion of the Fibres, so as to escape the Sight upon Opening of the same *Abscess*, neither *Surgeon* nor *Patient* suspecting any thing of the same.

There is another Sort of *Puncture* still farther mischievous, I mean, that made with the Point of a Rapier, or Sword, thrust through the Limbs or Trunk of the Body, where, besides the foresaid Accidents, mortal *Hemorrhages* and *Convulsions* carry off the Patient in an instant: But of these in our next *Section*, when we come to speak of Wounds inflicted on some particular Parts of the Body; and having sufficient Room in Proportion to the Length of the preceeding one, for the Addition of a few Words more, I think the same cannot be taken up more suitably, than in earnestly persuading the young Gentlemen of the Profession to the Study of *Anatomy*, by which, not only the *Nature*, but the *Cure* also of *Wounds*, will be the better understood.

That this Knowledge of the Fabric or Structure of human Bodies is absolutely necessary to every one professing the *Art of Surgery*, will need no Arguments, if we consider how often they meet with a Necessity of dilating, or opening the

An Exhortation to the Study of Anatomy.

the Parts in *Abscesses*, and *sinuous or fistulous Ulcers*; where we cannot obtain our Ends by *Compression* and *Deligation*: To look no farther than the Management even of a *Lancet*, what fatal Accidents have attended the opening of a Vein in the Arm; for which every ignorant Barber, now a Days, thinks himself well qualified: Such I mean, as *Punctures* of the *Tendon*, from whence *Pain*, *Convulsion*, *Apostemation*, at some Times, *Gangrene* or *Mortification*, at the best contracted Members with stiff and almost useless Joints.

As pernicious, if not more so, is the Consequence of a prick'd Artery, such as great *Hæmorrhage*, or prodigious Loss of Blood, with the Trouble that attends our best Endeavours to restrain it.

But farther, what wretched Ignorance must he betray, who knows not the true Situation and Office of the Parts of human Bodies, when his Judgment shall be asked of the Bye-standers, concerning Wounds that penetrate either *Breast* or *Belly*? when for Want of this Knowledge, and that of the supervening Symptoms, he does at random pronounce the *mortal* Wounds *recoverable*; and those of the less noble Parts, or where there is less Danger, to be *mortal*.

How unstable is his Hand, and how perplex'd his Mind, who is going about with his Knife or Scissars, some manual Operation? And how deplorable in the mean Time must be the Case of the poor Patient?

There are few of you Gentlemen have been unacquainted with the calamitous Effects of this Ignorance.

HIST.
xlvi.

I remember to have heard of two Persons, one of them I knew, who bled to Death, upon dividing the Artery together with the Tendon of

of the *Mastoides*, in the cutting for a *wry Neck*; the like Misfortune befell a third some little time after, by the Mistake of an *Aneurism* for one of the *humoural Tumours*, under the Hands of the same villanous *Empiric*, who was then forced to quit his Quarters, tho' I fear not his wicked Practice.

How many poor Cripples are daily presented to us, whose mangled, crooked, stiff, or contracted Limbs, are owing to ill Surgery.

Let me then conjure the young Fraternity of this worshipful Corporation, diligently to apply themselves to this so noble, so entertaining, and so useful a Study; to take all Opportunities of frequenting both *private* as well as *public* Dissections, by which it must be owned, they will receive a more useful and satisfactory Instruction, than by turning over large Volumes published upon this Subject, tho' these are by no Means to be neglected at their leisure Hours.

Consider Gentlemen, the Applause that will attend, and the Esteem or Credit it will justly gain you, when by this Acquaintance, you are able even at first Sight, to tell your Patient's Friends, the Nature of his Wound, whose Danger lies out of Sight, and whether he is likely to survive or sink under the same.

No less Advantage will hereby redound, that in performing some inevitable Operation, you foresee what Consequence must ensue, of which you can before apprise them: For Instance, Loss of *Motion* by dividing such a *Tendon*, *Sensation* from such a *Nerve*, *Hæmorrhage* or Bleeding from such an *Artery*, lying in the Way; by which Kind of *Prognostic*, I say, you may secure yourself from Reflection, and are armed likewise for what shall happen.

By thus pressing upon you a thorough Acquaintance with the Subject of your Work, I mean chiefly such a Knowledge as gives you a right *Idea* of the Course of the *Blood-vessels*, whether *Arteries*, or *Veins*, especially their larger Trunks and Divarications, before they commence Capillaries and escape the Sight: The Situation and Office of each *Muscle*, the Course of its *Fibres*, together with its *Origin* and *Termination*. The several *Pairs of Nerves*, with their most remarkable *Plexus*, whether arising within or without the *Cranium*, as from the *Vertebræ Colli*, *Thoracis*, *ac Lumborum*, are also fit to be known.

By the first, you will learn to secure your self in manual Operations against a *Hæmorrhage*; the second will direct your Knife to avoid as much as possible, a transverse Incision of the *muscular Fibres*, by which the Motion or Action of the same would be impaired, if not destroyed; and the last will instruct you in the Consent of Parts, to account for a *Paralysis*, or the Loss of *Motion* and *Sensation*, to distinguish between *protopathic* and *sympathic* Affects, or the Diseases arising *primarily* from the Part it self, or *secondarily*, by Consent from some other however distant, yet communicating therewith by Means of the said *Nerves*. As for Example, when by a Blow upon the Neck, the Arm or Hand happens to lose either *Sensation*, *Motion*, or both, you will understand with *Galen*, that your Remedies are to be applied to the *Vertebræ* of the Neck: If the like Accident befall the Loins, and thence a Palsy seize the Leg, the same Means are to be applied to the *Vertebræ Lumborum*, and that because the Nerves, which convey both *sensitive* as well as *locomotive Energy* or Power, taking hence their Origin, are here compressed.

A far-

A farther Knowledge than this, I must confess, I do not think so absolutely necessary, or that your whole Time is to be taken up in enterating dead Bodies, in poring through a *Microscope* to discover what perhaps is not, or if perceptible, yet of little Service to the practical Surgeon. The tracing every minute Fiber, or capillary evanescent Vessel, whether *sanguineous* or *lymphatic*, the prying into the intime *Compages* of the several *Fluids*, and the Nature of *Secretion*: These, I say, with other Niceties, you may leave to the *Physician*, or rather to the professed *Anatomist*, whose Labours herein are exceeding laudable, and from whence the Profession of *Physic*, within this last Century, has been wonderfully improv'd.

In a Word, the *Myotomy* or muscular Dissection, the *Angiotomy* or that of the Vessels, and as much of the *Neurotomy*, as will discover by what Means the several Limbs are deprived of their Sense and Motion, without concerning ourselves about those affected in the *Animi Pathemata*, or the several Passions: These, I say, with the *Structure*, *Site*, and Office of the *Glands*, their Division into *Conglobate* and *Conglomerate*, as we have observed them in discoursing of the *Strumæ*, are necessary for you to understand; and surely if the best Masters of those liberal Arts, *Painting* and *Statuary*, have thought themselves concerned to take the most exact Survey, not only of the Out-lines, that with more Exactness they may copy after *Nature*, and rightly display her *Symmetry*, or due Proportion, but practise also *muscular Dissection*, that thereby they may enable themselves to give still the better Grace to their Work, in regularly setting forth the

Risings

Risings and *Fallings* of these Parts, in their several Positions or Postures of the Body: Nay, the *Dancing Masters* of late have set up their *anatomical Lectures*, for instructing their *Pupils* to hop about in *Mood* and *Figure*.

Now if these Gentlemen are so careful and inquisitive, where the Mistake is of little Moment, and an Error of the *Pencil*, of the *Chissel*, or a *false Step* perhaps never discover'd, unless by some few Masters of the Arts, at the worst no harm ensues; what a Shame is it for us to be less diligent rightly to inform our selves in this Knowledge of Man's Body, where a Mistake is of the highest Importance, and where the *Knife* or *Scissars* erring no more than a Straw's, if not a Hair's Breadth, one of our Fellow Creatures may be undone, ruin'd in his Limb, if not depriv'd of Life, which may happen to be forfeited to an Ignorance in the *Anatomical Dissection*.

But surely I hope, there are few of you Gentlemen, who are, or have been well educated, that can want this Argument to be pressed farther; and therefore I shall here conclude this present *Section*.

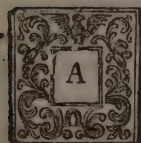




S E C T. V.



Of WOUNDS of some particular Parts, And first of those of the HEAD.



S our last was employed in the De-^{Wounds of} scription of *Wounds in general*, the ^{the Head,} Differences of them, and their diverse ^{with their} Management, the prime and chief In- ^{Prognostic} tentions in their Curation, with the ^{and Cure.}

Means proper to satisfy the same; so in this we shall observe those of certain Parts of the Body, beginning with the *Head and Face*.

Wounds of the *Head*, meaning those of the *hairy Scalp*, are either simple or compounded; by the *former*, I understand a Solution of its Continuity by a slight Cut of some sharp Instrument, which in a Manner admits of healing by the *first Intention*, if in a well disposed Habit, at the worst, after being *digested*, is easy to incarn and cicatrise; by the *latter*, I mean such as are accompanied with *Contusion*, *Laceration* of the same, or of the *Pericranium*, with *Fissure* or *Fracture* of the *Cranium* it self underneath. They

are both indeed subject to great Flux of Blood; and herein the simple Wound may be said to be *compounded*, for as much as that the said Flux not only at some Times creates Difficulty to restrain; but the Wound it self, which otherwise had probably united, is now by the cramming in of *Dossils*, or perhaps *Escharotics*, under Necessity of being treated as one that is *compounded*, viz. by *Digestion*, *Deterfion*, &c.

In Respect to the *Prognostic*, the *simple Incision* of the *Scalp* without *Hæmorrhage* or other Accident, is of little Concern or Moment but no *contus'd Wound* is to be made light of, since many of these, however call'd only *broken Pates*, have cost the heedless Patients their Lives, even many Days, Weeks, or Months, after healing of their Wounds, when no Danger from the same was apprehended; and this through some concealed *Fissure* or *Fracture* of the *Skull*, or some Extravasation of Blood underneath upon the Membranes.

In the Cure of the *simple incis'd Wound*, if the same happens to be more than an Inch in Length, a *Suture* may be necessary to bring the Lips nearer together, after which drop in a little warm *Liniment* of *Arceus*, and apply over a Pledgit faced with the same, which, in these Wounds, I think preferable to most others, either *natural* or *artificial* Balsams: Even where the *Petricranium* is laid bare, or also divided, there needs no other Application; unless by wounding that sensible Membrane, great Pain and Fluxion should arise, when it may be found expedient for the preventing farther Mischief, not only to divide the *Stitch*, but to lay down a soft *Dossil* dip'd however in the said *Balsam* or *Liniment*, upon the Bottom of the Wound, proceeding as in

Wounds

Wounds of this Part more complicate ; as with *Contusion*, in which, shaving the Hair all round about the Wound, if not that of the whole Head, you must first carefully examine, whether all be safe as to the *Skull* it self, which you may press upon all round with your Fingers, and diligently note your Patient's Complaint or Winching upon such Pressure. When by the Absence of such, together with that of the usual Symptoms hereafter to be set down, you have Reason to apprehend there is no Damage done either to the *Brain* it self, or its bony Coverlet, you may fill up the Cavity of the Wound, with *Dossils* moistned with the melted *Lini-ment* before mention'd, unless the Flux of Blood calls first of all for your *Restringents* or dry Dressings; the Strength of which, remember still to proportion to that of the *Hæmorrhage*, whether *venal*, or *arterial*, from a larger or smaller Vessel, as we directed in our Discourse of *Wounds* in general: Then embrocating the adjoining Parts *cum Ol. Rosar.* lay on a Defensative of *Diapalma*, *Bolus verus*, &c. over which your Compress and Bandage, the Circumvolutions whereof are to be so order'd, as to bear first, altho' gently, on the Outside of the Wound, whereby to express the coagulated Blood, and after *Digestion*, of the Matter also, that the same otherwise lodging may not excite any fresh Trouble or Disturbance, which we observed in our last *Section*.

When you have thus dressed up the Wound, unless much Blood was lost thereby, you are to open a Vein, and take away such Quantity from either Arm, as the Patient's *Age*, *Strength*, *Habit*, and *Way of Living*, will allow ; by which you may keep under the *symptomatic Fever*, and

abate, if not prevent the Fluxion; and this you must observe to do in all contused Wounds of the Head, however trivial they may seem, or unworthy of Regard, keeping your Patient likewise to a spare Diet; forbidding *Wine*, *strong Drink* and *Flesh*, at least for a few Days, and having digested the *Sloughs*, if there were any, being cast off; where you apprehend the *Pericranium* like to be uncover'd, or the *Cranium* also to ly bare, it will be necessary you provide for the Security of both, by immediately covering them with dry Lint, to defend them from the sharp or *nitrous* Particles of the Air; and whilst your Dressings are providing, you may apply a double Flanel, or Stuph, express'd hot and hard out of Wine, either white or red, or from a Decoction of the *cephalic* Plants, as was observed for the Wounds where the tendinous Parts were exposed in the last *Section*; by which you will not only discuss the Humours, and forward the *Digestion* by assisting the native Heat, but comfort also the Parts underneath; 'till being incarn'd, the Membrane is hereby secur'd from *sloughing* off, and the *Skull* from *exfoliating*: It being certainly a mistaken or a wrong Notion, and wide of Truth, that wherever a Bone is bare, and especially the *Cranium*, there is a Necessity of *Desquamation*, before the Wound can be brought to a sound healing: An *Hypothesis* advanc'd certainly to countenance either a slovenly or an ignorant Practitioner: Nor can I think truly, but that a third, if not one half, of those Hurts of the *Scalp* in common, which have thrown off a *Scale* from the *Cranium*, have been owing either to the Want of due Care, at the Times of dressing, exposing the Bone and its Membrane to the Influence of the Air, [that

known

*A bare
Bone not
always to
be exfolia-
ted.*

known Enemy to these Parts] or to some unctuous Application, that has tainted the same; and this I have remark'd by Way of Caution.

Having secured the Bottom of your Wound, and got the same cover'd with good Flesh, you are in like Manner to hasten *Incarnation* thereof, and to induce a *Cicatrix* thereon, for finishing the Cure; the *Liniment* aforesaid answering in these Wounds the Ends as well of a *Digestive*, as *Sarcotic* also; however a little *Ol. Hyperici* may be added in dry Bodies, and the fine Powders of *Myrrh*, *Aloes*, or *Sarcocol.* for those abounding with greater Humidity: In the former you may cicatrise with my *Cerat. de Lap. Calam.* in the latter nothing better than dry Lint.

But if it shall so happen, notwithstanding your utmost Diligence and Care, that the *Pericranium*, whilst the Wound is digesting, grows putrid, and sloughs off, leaving the *Cranium* naked and discolour'd, so that a *Scale* of its outward *Lamina* seems unavoidable; or that the same, as frequently occurs, is likely, tho' perhaps insensibly, to moulder away: For the greater Dispatch, and to prevent the farther spreading of the Taint, you must dress up [being first digested] with dry Lint, at least the *Cranium*, keeping the Wound so distended with your Dossils, as that the whole of the corrupt Part, which is like to cast off, may be kept within your View; for which End, if any *fungous* or spongy Flesh [usual at such Times] chanceth to arise, the same must be removed or kept under, the dry Lint proving insufficient, with some gentle *Catheratic*, such as the *Præcipit. rub.* with which some mix the *Alumen ustum*, and then call it the *angelic Powder*; but for the horrid Pain it creates, it

might, I think, be termed *diabolic*. The *Calx viva* is milder and serviceable also: Nay the *Alum* or *Vitriol* by themselves are not so painful, as the *Pulvis Angelicus* aforesaid. Some use the *Troch. de Minio* for this Purpose, but which, by Reason of the *Sublimat. corros.* in the Composition, and the ill Effects thereof, sometimes upon the Nerves, I would have you shy of.

Medicines
to hasten
Exfolia-
tion.

For greater Expedition in hastening off the *Exfoliation*, which remember always, the most powerful Desiccatives do promote above others, it is customary to express the Pledgits of Lint out of a strong *Tincture* of *Myrrh* and *Aloes* made in Spirit of Wine: Others use a *Tincture* of *Euphorbium*; others again sprinkle the fine Powders of the *Rad. Aristolochiæ*, *Diſtamni*, *Irid. Florent.* also those of *Myrrh*, *Aloes*, and *Euphorbium* by themselves; of which we shall take farther Notice, when we come to speak of *carious Ulcers*. Others, lastly, for greater Expedition, with an Instrument contrived for that Purpose, rasp off the external Superfice, and then dress it up dry, or with the Powders of *Myrrh* and *Aloes* strewed over the same; by which, when they have gone deep enough, little Grains of Flesh will soon after shoot up, that furnish a Basis for your Incarning, so that the Cavity being fill'd with sound Flesh, the Superfice must be dried into a *Cicatrix*, as we have directed before: And during the Time of using these drying Applications to the Bottom, unless the *fungous* Flesh forbids, you may dress the Lips with your Digestive, at leastwise lay on an external Pledgit lightly armed with the same: And thus far of the *simple* and *contused* Wounds of the *hairy Scalp*, either with or without the *Cranium* lying bare, or happening to be uncover'd.

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In *lacerated* Wounds of this Part, which are common from Falls off a House, out of Windows, against the Pent-house, or down the Stairs; having well cleansed the torn *Scalp*, with a Sponge dip'd in a little Wine, warm Milk, or what is nigh at Hand, and return'd it to its proper Situation, clear also the Hair away all round, as must be observed in all others of this Part, for your better Inspection, and the Security of your Dressings; but in this particular it will suffice to clip the Hair close, if there be any on the Part that is torn, whilst the rest of the Head is shaven at least round about the Hurt.

This done, by several Stitches taken at due Distance, you are to conjoin the sever'd *Scalp*, each Part as near as possibly corresponding with its opposite, or the Place it was torn from: Whereby, if you find, you cannot strictly repair the whole Breach, by the Way of *Symphisis* or Agglutination, you may however shorten your Work, and that more slightly than if rashly or ignorant-ly you cut off the Flap.

The *Linimentum Arcæi*, with a little *Balsam Terebinth.* being dissolved in a Spoon or Sawcer, with an armed Probe or Feather, may be let into the Wound round about betwixt the Interstices of your *Suture*, over which a proportionate Pledgit, faced with the said Liniment, and a common Plaister to secure the same: And here it is scarce credible, what Assistance your *Plaster Compress* well adapted with *suitable Bandage*, will lend to this Work.

But should it so fall out, the Wound having been received long before the Surgeon comes, or that the torn *Scalp* hangs only by some little Portion to the rest, and seems entirely perished, and incapable of any Manner of Re-union with

the Whole : Necessity now requiring, the same must be cut off, and the Wound after treated, as in *contus'd Wounds*, where there is great Loss of Substance, is usually requir'd : Which in these Cases particularly will be found both tedious and troublesome, as also difficultly skin'd over, not to mention the Consequence, an inevitable and irretrievable Baldness afterwards : Wherefore if there be any Prospect of uniting, the former is most eligible, and should at least be attempted : Since admitting the Stitches break through, you may perhaps still secure some Part at least of the Breach, and have the less to incarn : Or should the Whole mortify, you are but where you was, and may now remove the Part or Whole, as you see Occasion.

Wounds of
the Head,
with the
Bone bare,
so be de-
fended from
the Cold.

Observe farther, that in all these Wounds you are not only to dress your Patient by the Fire-side, or if in Bed, to have a Pan or Chafin-dish of lighted Coals, in the Winter-Season, placed within the Curtains, to correct the cold Intemperature of the Air, more particularly where the *Cranium* and its Cover lie exposed to the same, but to have ready some warm or spirituous Fomentation, as before we have directed.

Again, you must remember, as we have also already advised when we treated of *Gangrena*, that you proportion both the Heat and Strength of your Remedies to the Sense of the Part, more *blunt* or *acute* : The *Tinctura Myrrhæ*, and the *Ol. Terebinth.* being under the former Circumstances, added to the *Liniment.* and *Balsam.* *Tereb.* in the latter omitted or left out.

Of *Wounds* complicate with *Fracture* of the *Cranium*, we shall take Notice when we come to discourse of particular Fractures.

A Butcher keeping *Leadenhall-Market*, but dwelling near *Shoreditch-Church*, being in his Cups, and running hastily along in a stooping Posture, under a Jetty at the Stones-end [which in some Places lies so low, that without such Posture a Person even of mean Stature cannot pass] believing himself got out of Danger, and in his full Career raising himself up, the exceeding sharp Edge of a semicircular Joice, supporting the projecting old Edifice, took him on the *Vertex*, and dividing the *Calvarium*, forced the same back towards the *Occiput*, leaving the *Pericranium* naked for a great Space.

Being stun'd by the Accident, together with the Concussion attending, he was taken up as dead, and carried into the next House, where I found him with a Barber they had called in, who was just enter'd before me, but was so far from lending any Assistance, that, upon Sight of the *Cranium*, as he thought it, he ran away in a Fright. I then called for a little Wine, but there being none to be had, they brought in some Brandy, which having diluted, I began to wash and cleanse the Hair about the Wound from the Blood coagulated near the same: When I perceiv'd a small Artery spurting out *per Sal-tus*. Over this, laying a Button of Lint, dipt in the *Calcant.* and held close by one in the Crowd, of more Courage than the rest: Whilst the Roller was getting ready with my other Dressings, I had him placed in a Chair, not yet come to himself, yet staring with his Eyes wide open as in a Maze, or like one bewildred in Imagination; I then sent away for the Barber to shave the Head, but being already terrified, he would not come to us: So that I clipt off that which lay most in the Way; and having better clean-

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ed the same, took a farther View of my Work, and perceived the *Scalp* lacerated, or divided just over the *Sutura Coronalis*; when with one Hand forward upon the Crown of the Head, with my other behind, not without some Force I brought back the retracted and wrinkled Scalp to its Place [having before strictly enquir'd whether there was any *Fissure*, *Fracture*, or *Depression*] or to the sound Edge whence the *Hæmorrhage* proceeded, and where the Compression was still continued: When with four Stitches at equal Distance, I endeavour'd to conjoin the Lips in order to their agglutinating: Then dressing up the rest of the Wound with the warm *Liniment* and *Balsam. Terebinth.* the Person who assisted, still keeping his Finger on the Artery, upon removing which, I applied a fresh one dipt in the same Restrictive, with a Bolster in *Oxycrate*, and the *Alb. Ovorum*, sprinkled thick with *Farina*, and a two-headed Roller, with which I made as many alternate Revolutions as were necessary to secure the Dressings, which taking off again the next Day, whilst those on the other Parts were raising, I took Care to secure the Button-Compress upon the Artery, when embrocating the Scalp all round, which was much tumefied, *cum Ol. Rosar. & Lumbric. ā p. æ.* I dress'd up again as before, only leaving off the Astringents, and applying an external Pledgit of the Liniment over the whole Wound.

In Regard of the Fever and Head-ach, notwithstanding his Loss of Blood by the same, finding his Pulse strong, I took away ten Ounces from his Arm, applied a *Vesicatory* to the Neck, and order'd that Afternoon an emollient Clyster to be injected; by the Help of which Revulsion, and Derivation of the Humours other ways,

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the Symptoms remitted, and the Tumour on the Scalp subfided; the Doffil or Button digesting also from the Mouth of the Vessel, there appear'd no farther Effusion: However, this Part having been distended by the said Doffil, and fretted by the Salts of the *Vitriol*, the *Pericranium* was foul'd thereby, seeming likely to slough off, and leave the *Cranium* bare: Which, notwithstanding all the Care I took, besel the same before I could incarn: The rest of the Wound digesting, tho' a perfect *Symphisis* was not effected [there being too great Contusion, and the Stitches, tho' not entirely cutting themselves out, only giving Way; yet the Scalp uniting at the Bottom, and the Bandage so manag'd as to press forth any Matter by the Help of Compress] the Prospect was still hopeful.

I now laid down soft Doffils dipt in the warm *Liniment*, between the starting Stitches, in order to fill up with Flesh, which was after some Time accomplish'd; whilst at the other Extreme, the *Cranium* being divested of its Cover, lay naked; so that as soon as I had secur'd the Flux, I not only took Care to defend the Wound from the cold Air in the Time of Dressing, but instantly covering the bare Bone with a Pledgit of dry Lint, to apply a Stuph wrung out of hot Claret, dressing up this Part dry, only a Pledgit of the Digestive, as over the other Parts of the Wound, externally.

When the rest of the Work was compleated, it was still several Weeks before we could get a sound or firm Flesh to arise at the Bottom; yet at last the Ulcer gradually contracting without any Discharge, or [which was somewhat remarkable] sensible *Desquamation*, tho' it lay bare the Compass of a Six-pence, healed up of it

it self. The *Cicatrix* in this Place, as in all others where there has been a bare Bone, adhering close, neither capable of slipping about as in other Parts of the *Scalp* is natural.

In this Wound there being much Matter lodged underneath, I was less concern'd at the Stitches parting, and making Way for discharging the same: And truly I was once apprehensive, I must either have cut through the same, or laid on a Bit of *Caustick* on the hind Part to have given Vent thereunto, which for several Days after the Accident, fluctuated round about; and upon Dressing, with my Hand behind upwards to the *Vertex*, discharged in large Quantity between the *Sutures*: But by well fitting my *Plaster-Compress* to the Cavity, and bearing proportionably with my *Bandage*, so order'd as to compress first from the hind Part, the Sinuosity was at last united.

Had not the *Suture* lain in the Way, I would have rugin'd the outside Plate to have forwarded my Incarnation; but by Means of the dry Dressings, securing the Bone from the Air, and all other Defilement, the Cure in this Manner [even beyond my own Expectation] was brought about.

Wounds of *the temporal* Muscle. Between the *hairy Scalp* and the *Face*, upon each Side on the upper Part, lies the *Temple*, remarkable for the Accidents and ill Symptoms commonly attending the Wounds thereof.

I shall not take upon me to decide the Controversy, whether or no the *Pericranium*, forsaking the Scull in this particular Place, is expanded over the *Crotaphites*, or *temporal Muscle*, tho' I rather incline to their Opinion, who believe that Part which is here taken for the same, to be no other than the *Aponeuroses* of the *Musculi*

culi Frontalis & Occipitalis, which here uniting, make a sort of tendinous *Fascia*, or Cover for this Muscle. However, be this as it will, I cannot see more Danger from wounding the *Pericranium* here, than in other Parts of the Head, where it is frequently cut and ras'd, and always removed to make Way for the *Trepan*, when that Operation is required.

Inflammations will indeed arise upon any Wounds of the *nervous* and *membranous* Parts in general. I have known very severe Accidents have ensued the Puncture of a Lancet in opening even the *cephalic* Vein of the Arm, where it was evident no other Part could be hurt, unless the common membranous *Fascia* of the Muscles, to excite them : So that I must needs think, that which more troubles the Artist in these Wounds, is that Branch of the *carotid* Artery, here called *Temporalis*, very liable to be open'd in the Wounds of the same Part : But why this should appear so dreadful, I cannot see, because its Scituation, as being capable of good Compression against a Bone, and strict Bandage thereon, renders the Difficulty much less than in the same Vessels divided in other Parts : Besides the Operation of *Arteriotomy*, more practis'd abroad than among us [which I have successfully used in a stubborn *Hemicrane*, by opening this Artery, after all other Means tried ineffectually, and have known perform'd by others on the like Occasion] abates much of the Apprehension of this great Danger hereby.

This Muscle, whose Office it is to lift up the lower Jaw, has farthermore [according to some] its Tendon extended through its Body or fleshy Substance; but whether so or not, in the Overthwart or cross Section of its carnosus Fibres
through-

throughout, its said Function being hindred, and the *Antagonist* Muscle, the *Digastric* or *Biventer*, called otherwise *Deprimens*, over-acting, a Resolution happening on the one Side, a Convulsion may arise on the other, at leastwise for some Time, till the Fibers re-uniting, the Muscle, altho' imperfectly, recovers Strength.

Yet none of these are to hinder the Use of the Knife, when absolute Necessity calls for it, as to raise a depress'd *Cranium* underneath, or to make Way to come at either *Fissure* or *Fracture* thereof.

HIST. I. I once made, upon such an Occasion, a triangular Incision upon the Body of this Muscle, in the Presence of Mr. *Serjeant Bernard*, and some others, without other Inconvenience than the Arterial Flux, which was restrain'd with Dossils dipt in the *Aq. Stiptica*, Compress and a good circular Bandage assisting.

I have said this, by no Means to encourage a rash or bold Use of the Knife upon these Parts, which 'tis certain are attended with worse Symptoms than those of other Parts of the *Calvarium*; but to prove, that in urgent Cases, where there is no coming at a *Fissure* or *Fracture* without it, the same is justifiable, and has often been successfully enterpris'd: Only in operating, it behoves the Artist to avoid, if he can, the *Artery* [which he may be directed to by its Pulse] and a transverse Incision of the Fibers: Making the same, so far as he can, according to their Course *Longitudinal*, or with a *Curve*, as they run from the several Parts of their Origin towards their Termination under the *Os Jugale*.

Some propose this Incision to be made in the Form of the Figure 7, others like that of the Letter V, some in a Semicircular, and others

†

Circu-

Circular, taking out the Piece, as I have seen Mr. Bernard, in the superior Part of this Muscle, to make Way for the *Trepan*: But this must be left to the Operator, considering by which Method he can best compass his Ends, and run the least Hazard in so doing.

We come now to Wounds of the Face ^{Wounds of} properly, which have nothing very material in them ^{the Face.} differing from those of the Head, excepting that as in these last there needs less Solitude about the stitching them, but healing oftner by *Syfsarcosis*, or Generation of new Flesh, so in the first, if possible, we are to attempt their *Symphisis*, or agglutinating of their Lips; and that for preventing the *Cicatrix* or Scar, the smallest of which in some Parts hereof, takes off from the Grace or Comeliness of the whole Visage, and is therefore as much as possible to be prevented, by stitching up its Wounds, also strengthening the same by the cross adhesive Emplaster, or if the Stitches cut asunder before the Re-union of the Lips, the *dry Stitch* formerly describ'd is very convenient, there being little Help from *Bandage* in many Parts hereof.

It is customary with some, to draw out the Threads in three or four days Time, trusting wholly to the dry Stitch for the rest; and this they do to prevent the Impression of the Needle and Thread being after discernible: But I think, they are herein too hasty, since if the *Symphisis* be not compleat, which is not always in so short a Time, and that the Wound happens to gape for Want of its Hold, the *Cicatrix* or Seam would prove a much greater Eye-Sore than these Marks: That [if the Threads are not left in too long] are soon obliterated; nor can there be any limited or set Day for their Continuance, since, tho

tho' some are well conjoin'd in three or four, where there is an *homogene* balsamic Blood to soder them, and the Wound simply incised with a sharp Instrument; yet may others require a Week or ten Days, as in *cacochymic* Habits, and Wounds contused or torn.

There will be no Need of multiplying Forms of Applications for this Purpose; that common one so often already mention'd, I mean the *Liniment of Arceus*, with a little of the *Balsam of Turpentine* serving in the Place of most, if not all others; by the Help of which, without a *Suture*, where the Wound is Lengthways of the Fiber, many of these Wounds have been well united, especially when they can be assisted by *Bandage*, if not with a cross Strap of the *adhesive* Plaster.

Wounds of
the Eye.

As to particular Parts of the Face, the Wounds about the *Eye-brows*, or some of those of the lower Part of the Front, are attended with this Misfortune, that if they happen transverse, and withal so deep as to divide the Fibres of the *Musculus Elevator Palpebræ*, there is Danger of the upper Lid falling down upon the Eye, as I have seen more than once, and rendring the same useless; a necessary Hint to the young Artist, that in dilating here, he avoid as much as possible this transverse Incision.

Wounds of the Eye are sufficiently provided for in our Discourse of the *Ophthalmia*, among the *strumous* Symptoms, besides which I shall here insert a Case or two of this Kind for your farther Instruction.

HIST. II.

A Cook's Son in *Bishopsgate-Street*, a Lad about fifteen or sixteen at the Time of his Hurt, sowing up his Foot-Ball, the same being placed betwixt his Knees, stooping with his Head, in
passing

passing a Pack-needle through the Seams of the Leather, and laying his utmost Strength thereto, the Point suddenly slipt upwards; as he was in this Posture, and pierced through the *Cornea*, when instantly the *aqueous Humour* was discharged, and the poor Boy affrighted, fell out of his Chair, crying out, that the Needle had entred into his Brain.

Upon this Out-cry, I was presently sent for, and found the Humours of the Eye already confus'd, some of them lying like a Jelly in the Perforation; and the Lid beginning to shut up.

I immediately let him Blood, ordering a little *Aq. Hordei, cum Melle Rosar.* to be got ready, and used as a *Collyrium*; in the mean Time an *Oxyrrhodinum* was provided, an antient Form of Remedy, so named from its Composition of Rose-leaves and Vinegar; with this Vinegar were beat up the Whites of Eggs, a Couple of them to half a Pint, in which Compresses of Linen being dip'd and lightly expressed, were alternately, as they grew hard and dry, applied as *Intercipients* to the Fore-head and Temple of the same Side. A Clyster was likewise directed, and being dress'd up, he was put into his Bed, with a gentle *Anodyne ex ꝑ. Syr. de Mecon. & Aq. Ceras. nigr. ꝑ. j.* with a Blister to his Neck.

The next Day, notwithstanding all Precaution, the *Palpebræ* were much tumefied, with a puffy Inversion of the lowermost; so that it was not without Difficulty, that I could dilate them in such Manner, as to take a View of the Eye underneath. However I just perceived the *Adnata* cover'd over with a Sugillation of Blood; and out of the Puncture hung a Drop of the *Chrystaline Humour*: As the Day before, so now, a *Cephalea*, or obstinate Head-ach had kept him

restless all the Night, and between Whiles he had been *delirious*.

In Regard to the *Ecchymosis*, upon the *Adnata*, I order'd a Couple of Leaches to be set that After-noon to the Temple on the same Side: In the mean Time, for the speedier Relief of the Brain and disburthening the Vessels, I took away more Blood from the Arm; his Blister had discharg'd plentifully, yet the Fluxion was very great, so that I directed the following *Cataplasm* to be laid on the Outside of the Lids, after they had let in a little of the *Collyrium* first prescribed.

℞. *Fol. Rosar. rub. flor. Sambuc. ā. Mj. coq^r. in Lact. Vaccin. q. s. pro Colaturæ* ℥℥. *cui adde Mice Panis alb. q. s. ut reducatur leni coctione ad Consistentiam Pultis, sub finem addendo Vitelli unius Ovi cum tantillo Croci minutim scissi, illinendo Palpebrā tumefactā cum Ung^{to}. Sambucino priusquam applicetur.*

An *Emulsion* also to temperate the febrile Ebullition *ex sem. Lactucæ ac Papav. alb. ā. zij. Amygd. d. excort. N^o. vj. cum ℥℥. Aq. Hord. contus. addendo Colaturæ Aq. Cinnamom. Hord. 3j. Sacch. q. s.*

Of this he drank a Draught at Pleasure instead of other Liquor.

The third Day, notwithstanding all the Evacuation we had made, either by *Derivation*, or *Revulsion*, the Swelling still increased, the lower Lid turning out like a large *Fungus*: Wherefore I now order'd a Fomentation of equal Parts, red Wine and the Smith's Forge-water, in which were infused boiling hot, the *Flor. Sambuc. Chamomel. Fol. Rosar. rub. Flor. Balaust. Cort. Granat.* of the three first, each a Handful; of the two last, each half an Ounce to a Pint of each of the Liquors; the

the one half of which being strained, was reserved for the *Fotus*; the other was thickned with Bean Flower for a *Pultis*, having fomented the Swelling with soft Flannels express'd from the hot Liquor, the same was laid on warm, strew'd over thin with *Bole*, and mixing a little of the *Unguent. Sambuc.* first of all therewith, to prevent its hardening and growing dry too soon.

Thus in two or three Days more, the Tumour subsiding, we were able to lift up the Lid, so as to let in a thin *Mucilage ex Sem. Psyllii & Cydon. in aq. ros. extr. cum dimidia quantitate Mellis Rosar.* and the Fluxion still farther abating, at ten Days End, for the farther hastening away thereof, he was purged with the following Lenient.

R. Rad. Rhei. Fol. Senæ .ā. ʒj. Sal. Tart. ʒj. Tamarind. ʒij. Sem. fœnicul. d. p. i. Coq^r. in aq. F. q. f. ad Colaturæ ʒiij. cui adde Syr. Rosar. Sol. ʒj. & f. potio, Mane, cum custodia sumenda.

By the Use of this restraining *Fomentation* and *Cataplasm*, the lax and spongy Eye-lid daily recover'd its Tone; so that coming more narrowly to inspect the Eye itself, by the sinking thereof, I plainly perceiv'd great Part of the Humours were let out, and the *Tunicles* falling down: But as from the first Minute I declar'd the Sight irreparable, so I pretended to nothing more than by encountering the Symptoms, to secure the sound Eye from suffering by Reason of the same; which Point having now gained, and render'd the Part fit, I carried him to Mr. Boyce, then living in St. John's Square in St. John's Street, a most ingenuous Operator in the *Glass-Eyes*, who so nicely matched both *Iris* and *Pupilla* of the

found Eye, that going abroad, even such of the Neighbours, who had not visited him in his Chamber, and look'd in when I lifted up the *Palpebra*, could not distinguish the one from the other, but believed he had, as it were by a Miracle, retriev'd his Sight.

HIST.
lii.

A Case of this Nature, but by Contusion, befel one *Jay*, a *Bookseller* in the *Poultry*, and Brother to Mr. *Jay* an Apothecary in *Fenchurch-Street*, who being in the *Five's Court* in *Moorfields*, a Ball struck from the Racket hit him upon the Eye; which presently swelling up the Eye-lids, before he got Home, it was with great Difficulty we could raise the upper, or depress the lower, to make Inspection on the Inside, which we found cover'd with grumous Blood; but by proceeding, as in the Case foregoing, in few Days the Fluxion abated, and the Grume removed, there appear'd a Rupture of the *Cornea*, some Part of the *Uvea* projecting through the same, *instar capitis Muscæ*, whence by the *Greeks* it is called *μυοκέφαλον*; which was long in coming off; afterwards, so soon as might be done conveniently, the Blemish was hid by the like Artifice.

But where the Globe of the Eye on one Side is too much distended with Humour, or lies high and prominent, as in the *Bupthalmus*, or *Ox-eye* so call'd, or on the other too much depressed by the entire shedding of the Humours, and sinking in of the *Tunics*, the *Artificial* is little available in concealing the Blemish; whereas if some Part of the Humour still remains with the Membranes to bear out the same, not only the Eye-lid shuts and opens, but the Eye it self in great Measure follows the Motion upwards, downwards, and Side-ways, with its Partner; so that nothing but the Damp, or *Halitus* settling there-

thereon [and this too with the Handkerchief is removed in some wise] takes off from the natural Vivacity, and coming nigh, especially before apprised thereof, lets one into the Deception; but leaving this *prothetic* Part of *Chirurgery*, which teaches to supply what is deficient in Nature, by the Help of Art; the next we shall observe, are the Wounds of the Nose as also of the Ear.

As to both which, in making your Suture ^{Wounds of} where the same is wanted, you are to shun as ^{the Nose} much as possible, the wounding of the *Cartilages*, ^{and Ear.} with the Point of your Needle, lest thereby you stir up Pain and Inflammation; of the latter, you will find two remarkable Instances in my Discourse of the Diseases incident to the Skin: Of the former, take the following, first giving you this farther general Caution, that in all Wounds, where these Parts, I mean the *Cartilages*, are concern'd, no unctuous or greasy Medicine must be applied. Instead of which, after their Digestion with the *Liniment*, you may direct the *Tinct. Myrrhæ cum Melle Rosar.* or the *Balsamum Terebinth.* which I think one of the best Agglutinatives that we have, and as fit as most others in these Cases.

A Wire-drawer in *Woodstreet* coming late Home, had the Misfortune in *Cornhill*, to meet with two raking Fellows, miscalling themselves *Gentlemen*, who intending a Quarrel, shoved the poor Tradesman into the Kennel, and upon his Reply, one of them drew out his Sword, and cut him over his Face: Upon which the assaulted Person crying out *Murder*, the Watch hastening up to his Assistance, each of them fled a several Way; but the Man keeping up with his Adversary that had given the Wound, before the

HIST.
liii.

Watch could overtake them, had seiz'd and collar'd him : Being brought to the Watch-House at *Bishopsgate*, I was call'd up to dress the Wound, which with great Force by a Broad-blade Sword with a sharp Edge, had somewhat obliquely cut quite through the *Cartilage* of the Nose, therewith also dividing the upper Lip : The Tip of the Nose hanging over, and the Wound frightfully gaping.

When I had clear'd away the Blood with a little Brandy brought by one of the Watchmen, and got all Things ready by me, at least the best I could at that Time; I began by stitching up the Nose on each Side, and whilst an Assistant bore up the loose Tip, drew the Parts close, and made my Knot : This done, I made another upon the Lip, during which, the Assailant grew very tame and pliable, pulling off his Shirt to tear into *Compresses*, *Bolsters*, and *Bandage*, and seeming indeed in the utmost Concern for his rash Action, as knowing there was a Statute, on which he might be arraign'd and tried for Life upon this Occasion.

To secure our Stitches, after I had sprinkled on a little *Bole*, in order to restrain the Flux of Blood, and suited a small Compress dipt in *Oxyerate cum Alb. Ovi*, on each side the *Ale-Nasi*, for their better Support growing dry, I brought one narrow-folded Cloth a-crofs the Lip, pinning the same behind to a Handkerchief, tied round his Head for a Cap, with another of like Breadth, or somewhat wider, placing the middle hereof under the *Apex*, and bringing the two Ends obliquely upwards on each Side, where they were pin'd for the farther strengthening of the divided Parts, and upholding the Suture.

In the Morning, after they had been before a Magistrate, and our Spark had given Security for his Appearance, he came to me to desire that I would meet Mr. *Bernard* at the next opening of the Wound, which was appointed for that Evening; assuring me that if I could save the Man's Nose, I should have my own Demands. But at the dressing of the Wound this first Time, little Encouragement could be given, so *exangous* a Part as a mere Skin and *Cartilage* under it, affording none of the most warrantable Grounds for this *Symphisis* or Conjunction: Tho' the Stitches appear'd to lie close, yet were the Edges on the upper Parts inflam'd, and menacing a Separation, the Tip of the Nose cold also, and feeling as it were lifeless.

When I had fomented, in Company with Mr. *Bernard*, with soft Flannels press'd out of hot Wine, I thoroughly besmeared the divided Parts from one Side to the other, as also the Lip, with a Feather dipt in the hot *Bals. Tereb.* then cover'd them with Pledgits, faced with Liniement, laid gently down in some of the same, with my Plaister over all, and Bandage as at first: Only snipping a Hole for his easier Respiration, in that supporting the Tip of the Nose: And then making a somewhat doubtful *Prognostic*, we left the Gentleman in great Consternation, who visited us daily to know the Issue of his Frolick.

After the fourth Day, the Wound continuing still inflam'd, but little digested, or rather *sloughy* on the Edge, the two uppermost Stitches were cut through, altho' the Lips were kept close together by the superior Bandage; and for the farthering of the Union, I had provided the dry Stitch, but the Site of the Wound so little fa-

your'd the same, that I cannot say we had much, if any Advantage therefrom. The lower Stitches held, and there seem'd, after few Days, not only greater Warmth, but Appearance of Digestion in all Parts; the *Sloughs* on the Top loosening by Means of a small Quantity of *Præcipit.* mixed with the *Liniment*, the Wound being still touch'd all round with the *Balsam*, before the Pledgits were laid on.

The same being cast off, left a *Chasm* on the upper Part very unseemly, and which I was much concern'd to get made up, the Passage lying open quite through to the inside; however, the lower Parts appearing likely to unite, the Wound being digested and mundified, instead of the *Præcipitate*, I mixed the fine Powders of *Aloes* and *Sarcocol.* with the *Liniment* upon the Pledgit, and lightly touching the Edges with the warm *Balsam*, cover'd over the disjointed Parts therewith: To the wounded Lip I applied the *Liniment* by it self on the outside, and a Touch of an armed Probe dipt in *Mel. Rosar.* within.

The Patient all this while contenting himself with small Broaths, Grewel, or other supping Liquors, taken through a Spout for the first Days, and after with a Spoon; that he might as much as possibly avoid the Motion of the Parts affected.

At the Fortnight's End, the Union of the Lip, with the lower Part of the Cartilage, seem'd effected by the Help of a *Medium* of new Flesh in some Parts thereof: But the Gap on the upper Part still remain'd, tho' not so wide as it had been a few Days past.

Having taken out my Stitches on the Lip, one of which seemed a little to pull down the

Ala

Ala on that Side, I contriv'd another Sort of a Ligature, which being overcast or drawn in at the Middle for that Purpose, receiv'd the Apex or Tip of the Nose, like a *Suspensorium* or Bag; and bringing the same a little higher than before, obliquely on each Side, fasten'd about the Temples; by which I brought the disjointed Parts close together, and so restrain'd them, for the greater Quiet now dressing once only in two Days.

And thus the Patient keeping himself also exceeding still, and chusing rather to starve himself in a manner, than hazard his Cure by moving even his Lips to speak or swallow but of Necessity, at length obtain'd his Cure; the Wound thus at last uniting, tho' perhaps the *Cicatrix* had been more seemly by an intervening *Medium*, could we have procur'd one; for by forcing up the Tip of the Nose to bring the sever'd Parts together at the Top, which had lost of their Substance, there ensued necessarily a small Retraction, or drawing up of the same, altho' the Patient, who expected an entire perishing of the divided Parts, was well content, his Sore especially being farther *salved* over with twenty Guineas given for *Smart Money*, and dropping the Prosecution.

Wounds of the Lips, if not quite through, ^{Wounds of the Lips.} are to be stitch'd up as others of the Face: But where the same is divided, if this be thought insufficient, the Needle, for greater Security, especially in such as are made by a blunt Instrument, may be left in for a few Days, with the Thread twisted, as is practis'd in the Operation for the *Hare-Lip*: Besides which, in large Lips so divided, it may be of Service to take a common Stitch, either above or below, if not both
for

for greater Security of the Union, applying on the Outside the *Linimentum Arcei*, and gently with a Feather conveying a little *Mel Rosar.* underneath within, whilst the Patient observes diligently to keep his Lips from moving, and to take his Nourishment which must be Liquid, through a Spout or Pipe.

Wounds of the Tongue The Tongue is also liable to be wounded, which if not wholly cut off, is carefully to be stitch'd up: But here, having no Place for *Balsams*, we lay the Stress upon some *vulnerary* Decoctions in the way of *Gargle*, held in the Mouth, and spit out again, adding a little *Mel Rosarum*: This last also by it self, or with more or less of the *Tincture of Myrrh and Aloes*, as the same happens to be foul or putrid, with which dipping in an armed Probe, the wounded Parts are frequently to be moisten'd, first warming the same for that Purpose.

HIST. A young Gentlewoman under the Force of an
liv. *Epileptic Paroxysm*, had her Tongue so absolutely divided at some Distance from the Tip, in the midst thereof, by the Sharpness of the *Dentes incisores*, as if the same had been thrust through with a pointed two-edged Knife.

The Accident happening just by me, I was immediately call'd in, before the Fit was off; and perceiving the Nature of the Hurt, whilst her Head was held fast, I attempted to thrust in the End of my *Spathula*, farther back between the *Molares*; but finding it would not answer, I presently stept home, and brought with me a *Speculum*, and an *Elevator*, such as we use to raise up a depress'd Skull, with the last of which forced in between the strongest of the *Teeth*, I raised the Jaw, so as to make Room for the said Instrument on the Side opposite, with which an
Assist-

Assistant jointly raising, we set the Tongue at Liberty.

By this Disturbance she began to rouse, with a loud and profound Expiration, flinging about her Limbs, as in great Surprise, finding so many People about her: So that it was not without some Difficulty that we kept open her Jaw, till she came to her self perfectly: When calling for a couple of Skewers, I order'd a Bit of fine Rag to be wrap'd round the Top of them, to put in at each Corner of her Mouth, when the Speculum and Elevator were removed: And this we did, for fear that unawares the Tongue might be again compress'd; all this while her Head was held forwards for the Discharge of the Blood, which ran down in great Quantity from the divided *Ranulae* or *Sublingual* Veins: In order to restrain which, she held warm *Oxycrate* in her Mouth; but that not sufficing, I caus'd a Bit of *Alum* to be dissolv'd therein, and waited some little Time, till the Flux abated: Then coming more narrowly to examine the Wound, as she held the same out to my View, I perceiv'd the Tip, for about half an Inch, held only together by the two Sides, and those so jag'd and mangled by the *Canini*, that I could scarce think it possible a Union should be effected, tho' I resolv'd to try the Success of a Suture: Accordingly I pass'd a Needle, armed with a strong Thread, from the middle of the outermost Part, quite through at a proper Distance; then entering the Point of the same from beneath outwards on the upper Part, I drew the Sides close together, fasten'd the Tie, and cut off the Ends of the same; the Blood still continuing, and incommoding us in our Work: For the farther securing which, with as little Injury as possible

sible to the Wounds, or Hindrance to the Union, if the same could be brought to pass, I prepar'd a strong Tincture of the *Fol. rosar. rub. Flor. Balauſt. Cort. granat. in Vino rubro cum gut. xij. Spiritus Vitrioli acidulata, cujus ℥j. ʒj. Mel. rosar. addita erat.*

This being frequently held under the Tongue, without moving the same, the Blood flow'd in much less Quantity, and the Day following was altogether restrain'd: When the stiptic Tincture was alter'd for the following Gargle.

℞. Rad. Symphit. ʒβ. Plantaginis cum toto. Equiset. Sanicul. Bugulæ a. Mß. summit. Hyperic. p. j. Coqtr. in aq. Hord. q. s. pro Colaturæ ℥j. cui adde Mel. Rosar. ʒij. & f. Gargarismus. cujus tepesacti. teneat Cochl. duo vel tria in Ore sæpius in Die & ibi aliquandiu retenta sponte effluantur.

Besides this, she took between Whiles, a Spoonful of a *Mucilage* prepar'd of the Quince-seed in Plantane-water, with equal Quantity of the Honey of Roses, holding the same in like Manner, and suffering it after to run out: And farther to assist Nature in this momentous Affair, she living just by, I call'd in two or three Times a Day, and with an armed Probe, lodged some of the *Mel. Rosar. per se* in the Interstice of the wounded Parts; from whence so large a Quantity of *Lymph* or *Saliva* proceeded, as occasion'd a perpetual Drivelling, and was ready to wash off our Applications so soon as they were used: Which continuing, that I might repress the Deluge of pituitous Humours, I used a Tincture only of the Rose-leaves, with its *Mel* changed for the *Syrupus de rosis siccis*, at the same Time deriving them by the *Glandules* of the Guts,

Guts, in the Way of gentle Purgation, with a more immediate Revulsion of them by those of the Skin, from a *Vesicatory inter Scapulas*, which seemed to afford great Help, the Quantity now daily lessening, and giving little Interruption.

At five or six Days End, some *Sloughs* digesting and coming away with the Gargle, I observ'd they had cast off rather from the Perforations made by the Dog-teeth on the Sides, which were sadly haggled, than from the Middle where the Stitch held fast, and gave me Hopes of Union, which at ten Days End was so advanced, that being cut through, and lying loose in the upper Side, I divided the Knot with my Scissors, and taking hold thereof with my *Forceps*, drew it out, continuing still the *vulnerary Decoction*, and a frequent Touch with the *Mel Rosarum*, by which the Cavity was fill'd up, and the Wound healed.

During my Attendance, she kept constantly the folded Rag behind, or betwixt the backward Teeth, lest in her Sleep the Tongue might again fall in between, or waking, her Fits unexpectedly return; the *Prophylactic* for which was directed by her Physician Dr. *Tyson*, who for this End sometimes order'd her Pills *ex Ammon. Galban. Myrr. Castor. Pulv. de Gutteta.* at other Times an Electuary with *Cons. Anthos flor. Salvæ & Paralyseos. cum stercore Pavonis, succino cinnab. nativ.* likewise the *Pulv. Rad. Valerian. Sylv.* with sundry *cephalic Aposems, Julaps,* and *Draughts*, which had so good Effect, that she who seldom miss'd before a Week, scarce ever a new *lunar phasis*, for more than three Years past, without a Fit, had no Return till seven Months after, occasion'd then by Grief.

During

During these Applications to the wounded Part, she lived very abstemiously, taking nothing for a Fortnight's Time but Liquids or Potables, and those too swallow'd very leisurely.

We shall pass hence to the Wounds of the Neck, which if only dividing the Skin, or therewith the Flesh, are to be treated as those of the other Parts: But when the *Jugular Veins*, or the *carotid Arteries* are also wounded, you must proceed as we shall direct for those of the Veins and Arteries.

Wounds of the Neck and Throat. The Wounds of the *Aspera Arteria*, and adjoining *Oesophagus*, or of the Windpipe and Gullet, will require your utmost Care and Diligence, as well by Reason of their Nature as Office; in which you are carefully to make Suture with strong Thread, taking good hold of the Skin on each Side, bringing the Lips close thereby, and making also as many as the Length of your Wound shall require, at proper Distance from each other: After which you are to lay on a Pledgit dipt in the warm *Liniment* with a little of the *Balsam Tereb.* melted down therewith.

The Scituation of these Wounds renders them still farther troublesome, by Reason of the Difficulty to secure the Dressings, the Part being incapable of Deligation, and the Discharge of a more than ordinary *Gleet* spoiling their Digestion, and hindring the Effect of the Applications, those of the *Gula* more particularly; by Reason the Liquids which the Patient swallows for his Sustenance, are apt to run out of the Wound, besides a spumous Humour from the *Glands*, which is perpetually issuing forth.

For these Reasons I have known it practis'd by some, in order to retain the Lips of the Wound

Wound closer, to thrust the Needle through on each Side, taking Care not to hurt the *Cartilaginous Rings*, as is usual in the *Hare-Lip*, and twist the Thread or Silk round about the same : When after Digestion, for the greater Exsiccation of the serous Humidities attending, they sprinkle on the fine Powder of *Sarcocolla*, or dress up with the Tincture of *Myrrh* and *Aloes*, and a little *Mel Rosar*.

Where the Windpipe is not divided in the Wound, yet by Reason of great Fluxion, Inflammation befalls the Muscles, more particularly the internal, as the *Thyroarytænoides*, and the *Arytænoides* it self, the Passage for the Air is likely to be precluded, and the Patient thereby suffocated ; you are to proceed as in the true *Angina*, not only making all possible Revulsion by *Bleeding*, *Blistering*, *Cupping*, sharp *Clysters* ; but according to some, and that very rationally grounded [yet I think very seldom put in execution ;] with your Knife to divide carefully the Membrane between the *Rimulae*, or Rings of the Air-Pipe, and introducing a *Cannula* below the Part obstructed, which is to be there continued till the Symptoms remit, and the Respiration is carried on as before, when the Pipe may be taken away, and the Wound admitted to heal up again.

This Pipe is order'd to be perforated on the Rim of each Side, for Strings to pass through, and fasten behind the Neck, in order to prevent its slipping out : And by this we are inform'd from Authors [for I must confess I never tried the Remedy, nor have I seen it enterprised by any other] that some People's Lives have been saved under the most imminent Danger, and more might [not unlikely] had some of our Surgeons
Cou-

Courage equal to their Skill, or would venture thereby their Reputation; for Want of which I fear many such like Accidents have become fatal, where they stood this way a better Chance for Life: Tho' some of them are no way to be retrieved, through the vast *Hæmorrhage* frequently attending the Division also of the neighbouring Blood-vessels: But proceeding.

'Tis certain that these Wounds require the strictest *Regimen*, and the greatest Repose: All Foods are forbidden that require Mastication; as in the foregoing, even speaking is injurious: As to the first let him be fed with thin Panada, Water and Barly-grewels, Chicken or other small Broath, Harts-horn Jelly, sometimes a rear poach'd or a new laid Egg: His Drink Sack-whey, Barly-water, Almond-milk, or such like: Let the Neck be embrocated round about *cum Oleo Ros. vel lumbricorum*, and a Decoction of warm Plants applied with Flannels, as a *Fotus* at the Times of Dressing, or good Wine supplying the Place, which is here often necessary twice a Day: Nor must you suffer, as we have caution'd in the like Cases, any unctuous Medicament to come near these Parts. Farther, the Head is to be kept steady, rather inclining towards the Chin, being raised with his Pillow, where the Wound is athwart or transverse, as most commonly; or reclining, where lengthways, which is very rare [And yet I once saw a desperate Wound so made] By both these Positions you bring the Lips of the Wound nearer to each other, and prevent the Stretch of your *Sutures*.

'Tis our Misfortune indeed generally at these Times, that we have to do with *Lunatics*, *Hypochondriacs*, or melancholy despairing Persons:

These Wounds being customarily made by those we call *Felo's de seipfis*, and who, if they escape, are many Times equally obliged to their Keepers and Nurses, as to their Surgeons; without whose constant Vigilance and Care of them, they would perhaps pull off their Dressings, and tear in sunder their newly stich'd up Wounds.

An antient Man coming out of *Essex*, under some seeming Discontent of Mind, took up his Lodging at the *Dolphin* without *Bishopsgate*; and in the Middle of the Night pulling a Razor out of his Pocket, drew the same strongly across the Wind-pipe, on the protuberating *Thyreoides*, or *scutiform Cartilage*: Over which moving the same backwards and forwards, he had mangled it in a frightful Manner. When finding the Resistance too great for his entering through, he made a second Attempt lower, and bringing his Hand towards the right Side of his Neck, open'd the *Jugular*, on the same; whence perceiving the Blood running plentifully down, he lays aside his Razor, leaning himself over the Side of the Bed, that the same might fall down upon the Floor.

In this Posture, before he was quite exhausted, he gave several strong Groans; which being over-heard by a Stranger, waking out of his Sleep in another Bed, tho' the same Room, gave an Alarm to the said Person, who calling out, but hearing no Answer, leap'd out of Bed, and crying aloud at the Window for the Chamberlain, a Candle was brought in, and the poor old Man found speechless, as under the Agonies of Death: However finding, by his Sighing, that he was still alive, they came presently for my Assistance, who, understanding what had happen'd, hastned to him with such Necessaries, as

I thought I might have Occasion for; and coming to the Bed-side, found a Stream of Blood running thence to the farther End of the Chamber.

Having presently dip'd a Sponge in Water, I clear'd away the Blood from the Neck and Throat, and discovering the Source of the *Hæmorrhage*, directed the Chamberlain to hold a thick Button of Lint, dip'd in the *Colcothar*, up close to the Bleeding-vessel, whose Stream ran now but low through the *Deliquium* attending, and the Mass almost drain'd off. This done, I more narrowly inspected the Wound, which I found at the Top in so many Places jagged and cut, that I could not see any Room for stitching there, or Benefit like to accrue thereby; but on the lower Wound, I made three, one in the midst of the *Larynx*, where having turned the Edge of the Razor, sawing against the upper Cartilage, he had only made Impression on the *Rimula*, but mist the Membrane; and two at equal Distance, on the Side, taking fast Hold of the wrinkled Skin, the outermost being near adjoining to the wounded *Jugular*, where the Compress was still retain'd. Over this, when I had dress'd the other Parts with Pledgits arm'd with *Liniment*, I laid on a Bolster of Tow dip'd in *Oxycrate*, and sprinkled with *Farina*, with suitable Bandage pin'd behind to a Cap we had got for him, and a Neckcloth also for greater Security.

Whilst this was doing, he fetch'd, as we say, several Sighs; and having cleaned him, and put him on a fresh Shirt, we attempted to get down two or three Spoonfuls of Wine, but could not, at least as I perceiv'd. I then call'd to him, and desir'd, if he could not speak, that he would
make

make some Sign by lifting up his Hand to mine, at which he star'd like one amazed, but could do neither.

Wherefore it was thought necessary to secure his Chamber-fellow, who freely surrender'd himself without offering at an Escape, but readily assisting us all the Time, there being none but these two in the Room, and not certain but that the old Man had been assassinated, nothing found in his Pockets more than would pay for a Night's Lodging; altho' his Habit was very decent, but plain like that of a Country Yeoman, of the inferior Rank.

It was truly my Opinion that the Case was *Suicide*, the other poor Man calling out for Help, instead of making his Escape, which he never attempted; but how innocent soever, he was committed to the Compter in the Morning.

Having left Orders with the Chamberlain for his farther Management, till a Nurse could be provided; I went Home in great Concern for the poor Traveller, who was like to be sent to *Newgate*, yet upon Search, had only two Shillings with some Farthings found upon him: But in few Hours after, was earnestly intreated to go back, for they had heard him speak. Being well pleased at the News, for the Satisfaction of my own Mind, I hastned to him again, and calling aloud, [for I understood by the People of the Inn, that he seem'd to them a little deaf, over Night] asked him how the Accident came, and whether he had cut his Throat, or some Body else: He answer'd me very low and faintly, it was the *Devil* had done it. I then order'd the Servants to come close to the Bed-side; when I again put the Question, that if the *Devil* had done it, whether the Razor was not his, and held

in his own Hand, when the Wound was made? He replied yes. I then desired he would tell us, if the Stranger, who lay in the Bed just by him, had any Hand in the Action; because he was brought into Trouble upon this Occasion, and might be hang'd for him. Upon which he answer'd with great Concern, as loud as he could, no, no, no; whereupon drawing up a small Writing in the Form of an *Affidavit*, for each Witness to sign, together with one I made myself before the Magistrate, I went the same Day, and procur'd the poor Fellow's Release; but this as foreign [for which you will I hope pardon me] passing by.

In the Evening I visited him again, and found he had not bled since he was dress'd; I order'd a comfortable Julap for his Refreshment, of which I saw him, tho' with great Difficulty, get down a Couple of Spoonfuls: At this Visit I gave him no farther Trouble, than by asking him if he was willing to live; to which shaking his Head as well as he could, and lifting up his Hands, he replied very earnestly, yes; and as I understood by the Nurse they had now provided him, he had been very devout in his Actions, and by some Expressions they could hear if they stood close to him.

The next Morning I perceiv'd him very sensible, and had some farther short Answers [for I found him too low for talking much] to certain Questions put to him on this melancholy Occasion. I defer'd the opening of the Wound till the next Day for Fear of renewing the *Hæmorrhage*; but left him with strict Charge, that no Person should be admitted to hold any Conference with him, but that he should be kept as
still

still as possible, and refresh'd with his thin Broaths or Grewels, as he was able to swallow them.

But the Day following, I took off the Dressings, intending to have made a Ligature on the upper Part of the *Jugular*, if I had seen a Necessity for so doing, the same lying so fair in this meager Subject; but finding a Crust upon that Part of the Wound, left the same undisturbed, dressing the other Parts with the *Liniment* and *Balsam*; the mangled *Cutis* upon the prominent *Cartilage* at the Top, I besmear'd with the same warm Mixture, and a Pledgit on the Outside, binding his Wounds up again, and leaving him with a somewhat reviving Pulse, and much more sensible.

The same Night I went to see him, and had some farther Discourse with him; whence I gather'd, that by Reason of Discontent through some Misfortunes in the World, he had left his Home and rambled up to Town, not so much I had Reason to believe, with any View of retrieving them, as to put an End to them in a strange Place, where he might be buried in Obscurity: But what I thought a little odd, was this, that from the first Time he was able to communicate his Mind upon this Affair, to the last of his Stay in Town under my Care, which was three Months, he would acknowledge no Part of his Consent to the intended Murther of himself after this Manner, but that it was done in his Sleep; for he well remembred he was dreaming at the Time, that he got up in his Bed, took his Razor out of his Pocket, and was cutting his Throat; but meeting with some Obstacles, he said he had an Apparition of the *Devil* coming to assist him, who, as he thought, took the Razor out of his Hand, after making the second

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Effort, and therewith immediately opened the Vein, at which he concluded he was bleeding indeed to Death, and had accordingly put himself in a Posture for the same.

This Feat, I think, exceeds those of all the *Noctambuli* or *Visionaries* I have met with, the Man being no ways *frantic*, but serious and composed after, as any Man whatever.

I then asked him, if it was not in his Thoughts to destroy himself, at the Time he set out from his own Habitation? This he did not deny, but own'd, that he was about to have thrown himself into a River twenty Miles from *London*, and was put aside the Execution for that Time, by some Children playing at the Bank: So that he came onwards, resolving now to try the Kindness of a Friend, he had in Town. I once more put the Question close, if it was not in his Mind to cut his Throat that Night upon his going to Bed; which he utterly denied, nor was the Razor, he said, provided on any such Account, being what he always carried about him when he went from Home. He did indeed confess, that if he was disappointed of his Errand, which was a Grant for the looking after some Hop-grounds of a Gentleman then in Town; and which, through the Interest of a Friend, he was in Hopes of, the next Day he was resolved either to hang or drown himself; but solemnly declared it was never his Intention this Way to destroy himself; nor would he ever be persuaded otherwise, than that what he had done was in a Dream, and that he could not compleat the Work, till the Apparition help'd him: Once again, asking Pardon for this Digression, I return.

When I had treated the Wounds after the Manner above-mention'd, for about a Week, I per-

perceived the mangled Skin above upon the *Thyreoides* Cartilage, like to slough off, and to leave the same naked a considerable Compass: Wherefore strewing thereon a little of the *Præcipit. rub.* I hastned the *Mundification*, and after dress'd up *cum Tinct. Myrr. & Mel. Rosar.* sometimes strewing thereon the fine Powders of *Sarcocol.* and *Aloes*, with a Pledgit of *Liniment* dip'd in the warm Balsam, in Hopes of incarning, but to no Purpose; the Stitch below, that particularly on the Wind-pipe, broke through, whilst the other on the Side, held some Time longer, promising an Union: Nor, which was very remarkable, had we any farther Interruption from the Blood-vessel, the old Man daily getting Strength, and taking his Nourishment in Order to the same.

At the Month's End, we allow'd him to sit up, and to admit of Visits, which were made him by several charitably disposed Persons, who out of Curiosity came to see him, whilst others sent him their Beneficence; so that being now again in good Plight, well furnished with all Things necessary for the present, and a Purse raised for his Subsistence for some Time after; he grew daily more strong and chearful, and was able to come to me to be dressed.

When the lower Wound was partly incarned, and partly united and healed up, the upper lay still open, the Compass of a Shilling: Nor could I, with all my Care and diligent Endeavour, procure a Generation of Flesh upon the same; so that giving him Instructions to press out a Pledgit from the *Tincture*, and apply thereto, with an adhesive Plaister over it, he came only once in three or four Days, till after ten Weeks Time, the upper Part of the *Cartilage* crumbling off in

several small Pieces, like an *Exfoliation* from a Bone long Time exposed or lying bare; the Ulcer now drying up, the *Cicatrix* felt hard and immoveable as that over a Bone *desquam'd*. Indeed the Cartilage, through Age, was in a Manner ossified, and being so, his Life was undoubtedly preserved; for the Razor could by no Means enter it, the Edge being thereby turned and blunted, as if the same had been several Times drawn over a Bone, leaving only an Impression like that from a Saw, and mangling the external Teguments.

HIST.
lvi.

A Gentlewoman under the Power of Melancholy, upon some Discontent between her Husband and her self, got up in her Bed, and taking a Pen-knife out of his Pocket, which she knew he always carried there, whilst she was loosening his Neckcloth in Order to execute her tragical Design, he wak'd, and starting up in his Bed, perceiving her also sitting therein, leap'd out; when she plainly told him upon asking her Design, that the Devil had put her upon cutting his Throat, and that she would have done it, if he had not waked: Upon which drawing back the Curtain, and going about to take the Knife out of her Hand, she forcibly struck the Point of it into her own Neck, where the Edge of the same first cutting through the left Side of the Wind-pipe, entred after into the Gullet.

The Wound being small, there was no Room for a *Suture*; but in Regard of a Flux of Blood, I dress'd up dry for the present: And the next Day, perceiving some Spume or Froth from the *Aspera Arteria*; upon taking away the Dressings, I held a Bit of Wax-Candle near the Orifice lighted, and observ'd the Flame strongly waving to and fro by the Passage of the Air. I then offer'd

offer'd her a Coffee Dish full of Sack-Whey, but she refus'd drinking; till with much Intreaty I prevail'd, and she with seeming Difficulty, and in great Pain, gulped down a little, some of which ran out of the Wound; and a *Singultus* presently seised her, holding some few Minutes, as it did at other Times, when she took any of her liquid Sustenance.

I then dress'd up the Wound with a short Tent, only entring the Orifice in the Skin, dip'd in the warm *Balsam* of *Turpentine*, of which she had a Taste presently in her Mouth, as she complain'd, with a Pledgit of *Liniment* and a sticking Plaister, embrocating round about *cum Ol. Lumbricorum*.

At the Times of dressing, she was seised with a great Streightness and Oppression, saying as well as she could speak, that she should be choak'd for Want of Breath; which put us upon the greater Dispatch in covering up the Wound, when soon after she breathed again with more Freedom.

About the Week's End, the Puncture in the *Gula* seem'd to consolidate, no more of her Nourishment issuing by the Wound, with much less of her Hiccup after Swallowing; that likewise in the Wind-pipe was in a fair Way of a uniting; but growing sullen, she took her Opportunity and would pull off her Dressings, refusing also her Food. Being a Woman of great Spirit, she could not bear the Reflection and Reproach, she concluded, she had now brought upon her self; and therefore seem'd concern'd at nothing more, than the Want of an Opportunity more effectually to dispatch the Work. However counterfeiting her Concern for what she had done, and seeming now willing to escape, she

she grew pliable again, and took her Sustenance, suffering also her Dressings to lie on, by which the Wound again digesting, the Inflammation on the Wind-pipe went off, and the Tent being left out, we dressed only with an external Pledgit faced with *Liniment*, and then dipt in the warm *Balsam*.

Soon after this she got up, and walk'd about her Chamber in Company of her Nurse, who was order'd to have a watchful Eye over her; and when the Wound was just heal'd, she took an Opportunity, believing the Woman asleep, to tie her Garter about her Neck, and fasten the same to a Cloath's Peg in the Chamber, on the Inside of the Bed; but the Weight of her Body pulling down the Peg, and making a great Noise, the poor affrighted Nurse called out for Help, and she was a second Time repriev'd a little longer, much contrary to her Desires.

She now again grew fullen, and refused either to eat or drink for some Days, till her spiritual Physician taking much Pains, perswaded her, and brought her into better Temper.

After this I heard no more of her for several Weeks; when the Family believing her Melancholy was worn off, by her more chearful and orderly Deportment; however they had still an Eye upon her; yet watching with great Cunning and a dissembled Show of as great Easiness of her Mind, she ran from her Keeper out into the Leads on the Top of the House, three Story high, and flung herself over the Rails: Yet here also was she wonderfully preserved, for that a Penthouse over the Kitchen Window, taking off the Force of the Fall, she fell together therewith upon the Free-Stone Pavement, without any remarkable Bruise, or broken Bone, only a Wound upon the Scalp, occasion'd

occasion'd by the Edge of a Board in the Yard.

Whilst I was treating this Wound, I perceived now she grew desperate, and therefore she had two or three always to watch with her; so that finding she had no other Way left to end her Misery in this Life, she obstinately opposed all Manner of Subsistence, spitting out all that was forced into her Mouth; in which Condition she held out near a Fortnight, or till the Wound was here also cured, notwithstanding the poor State of her Blood, and the *Dyscracy* of its Juices: In which Time they never could perceive her sleep. And thus this miserable Gentlewoman, one of the most beautiful and ingenious of her Sex, missing Death by the *Stab*, *Throtling*, and dashing out her Brains, as she intended, had now no other Way left to procure what she so earnestly desired, than to with-hold the Support of Life, and starve herself.

I remember on such like Occasion, to have rescued the same Person twice by timely Bleeding, after as timely a cutting of the Cord, with which he was about to strangle himself; in the same Month, I stich'd up a large Wound cross his Throat, where the Wind-pipe and Blood-vessels escaped the Knife, which he had made to destroy himself; and having healed the same, for Want of that Inspection which ought to have been taken over him, he got down to the *Thames* Side in the Night Time, and there dispatch'd himself by drowning.

These surely are those Spirits mention'd by the sacred Writer, where he thus expostulates, *That the Spirit of a Man will support his Infirmities, but a wounded Spirit who can bear?*

HIST.
lvii.

The next we shall observe are the Wounds of the *Breast*, called by *Anatomists* the *middle Venter*, which befalling only the containing Parts, require nothing differing from those of the same in other Parts of the Body: But in Wounds penetrating thereinto, the greatest Judgment will be requir'd, not only in making a sound *Prognostick*, but in the due *Regimen* or *Physical* Prescription, as well as in the *Chyrurgical* Application; without the one of which you will hazard your own Reputation, as without the other your Patient's Life: And here by the Way I cannot but observe that common Method of making *Reports* before the *Coroner's Inquest*, with Relation to the *precise Breadth* and *Depth* of Wounds penetrating this Part, together with those of the *lower Belly*.

Of making Reports to the Coroner. Whether the Law requires such an exact and positive Account, as to the *Breadth* and *Depth* of a Wound, made by an Instrument entering the Parts of the Body, I know not; but think the same to be of great Uncertainty, and sometimes impossible to be thus nicely gaged, or determin'd to several Inches: For admit the Instrument *Cylindrical*, as that we call a *Tuck*, and some of the narrow-bladed Rapiers; or the same all of a Breadth, as in others, also in some Knives, falls out: The external View of such a Wound will give little Insight into its Depth, no more than its Probation; nor will the same be always discoverable even upon *Dissection*, which is commonly appointed before the *Report*.

There is indeed somewhat more of Certainty, when discovering what particular Part receiv'd the Hurt, and examining the Distance from the outward Orifice to the Extremity of the same inflicted in such contained Part: But suppose the Instru-

Instrument entred through the same, as for Instance the Lungs or Heart, in the *middle Venter*, the Stomach or Guts in the *lower*; or if the Wound in the same, through its Smallness, or Change of Position from what it was at the Time of inflicting, is not discoverable; or lastly, if it entred through the *Diaphragm* from below, into the Cavity of the *Thorax*, or from above into that of the *Abdomen*, or went quite through the Trunk: In either of these Cases, I say, I would desire any of you to tell me how you can make Report that the Wound was just three, five, or seven Inches, any more than six, ten, or fourteen, or perhaps four and twenty.

Some farther Direction we may have, 'tis true, in this Affair, by viewing also the Instrument immediately, where it can be found; when if the same was not designedly wiped or clean'd before, you may sometimes discover how far it has been stained by the Blood or *Halitus* of the Body, which will give us more Light as to the Depth, than the outward Dimensions of the Wound; where after Death, the Parts subsiding, the same may happen to appear less, or distended by *Flatus* from the putrid Ferment, somewhat larger than when first made.

I have hinted thus much, to shew the Invalidity or Uncertainty of such *Reports* in general, and I think their Inutility is as manifest: The Design of the *Inquest* being surely intended to receive Information, whether the Wound was *Mortal*, entring either a lesser or greater Depth into the Body, or wider or narrower on the Outside: Since it is Fact, that one Man may be *mortally* wounded by an Instrument entring only two or three Inches, whilst another escapes where

where the same has passed two and twenty : It being out of Dispute, that neither *Breadth* nor *Depth*, simply consider'd, but the Nature of the Parts lying in the Way of such Instrument, makes the Wound *mortal* or *recoverable* : So that the Surgeon, who deposeth upon Oath, that to the best of his Judgment, after strict Examination, the Wound, or other Hurt was the Occasion of the Person's Death, enquir'd after by a Jury impannell'd for that End, has fully answer'd the End of the Law, as well as satisfied his own Conscience.

But if Judgment is requir'd to be given, the Person yet alive, concerning the Danger or Condition of the Wound, either for private Satisfaction of Friends, or in order to the Commitment or Bail of the Offender ; 'it is necessary first of all, in order to gain a farther Knowledge of the particular Parts wounded, that as before observ'd, we inform our selves the best we can of the Posture of the Body at the Time of receiving the Wound : As whether the wounded Person was upon the Ground, whilst he who gave it, was on the Steps or Stairs above him, *vel Versa Vice*, the wounded above, whilst the Assault was from below ; or if both were on the Level : Also whether the Thrust was made Sideways or Slanting, the wounded Person turning his Body, or if direct and fore-right. When the latter falls out, the Probe will more readily discover the Penetration, or the Flame of a Candle, supposing it in the Chest ; otherwise this last may deceive you ; even the Probe it self, unless guided by these Directions, may meet a Stop through the Intervention of the Membranes or Muscles by their Situation alter'd.

To come then to the Purpose, and discover what Parts are hurt within, we must collect what we can, from the *Symptoms, the Situation of the Wound outwardly, and the Parts opposite thereto on the inside.*

Diagnostic
Signs of
Parts
wounded
within the
Body.

Thus, if the same were made direct, especially if accompanied with great Weight and Oppression of the Breast, streight breathing, with a coughing up great Quantity of florid, spumous, or frothy Blood, the Wound about the fore Part of the Sternum or Breast-bone, or rather inclining to each Side, we boldly pronounce the Lungs to be wounded.

If Syncope or Fainting, cold Sweats, large Hemorrhage, and sudden Prostration of the vital Faculties, the Wound situate rather in the midst of this Part, the Heart and its Blood-vessels: Which Wounds you are to take Notice may be also given by a Push through the Sides, or more backwards, directed to the Center of this Region, as well as those directly forwards; which shews the Necessity of enquiring after the Posture of him that is wounded, as well as that of the Person who was the Occasion thereof.

Again, if there be violent or acute Pains, interrupted or sobbing Respiration, Singultus, Spasms, on Convulsion, perpetual Vigil, with great Inquietude, Paraphrenitis, or Delirium, the Wound below the Sternum and Ribs, the Diaphragm or Midriff: Nor does it here require as aforesaid, that of Necessity the Wound should be precisely circumscribed, or answer directly to the Parts within, since he that is above, may thrust the Weapon thence down, and he below, upwards into the same Part.

When a gravative, heavy, or dull Pain, with Hemorrhage also at some Times, the Wound on the right

right Side beneath the Ribs, the Liver; as on the Side opposite, the Spleen.

If between these, in the Middle, just under the Cartilago Xyphoides, accompanied also with Fainting, cold Sweats, the Chyle issuing forth at the Wound, the Ventricle or Stomach.

If behind, on either Side of the Spine, upon the Region of the Loins, especially if Blood ensue together with the Urine, the Kidnies.

If acute Pains, Deliquium, Singultus, cold Sweats and Convulsions, the Wound about the Navel, the small Intestines.

If lower on each Side, with Excrement issuing from the Wound, the larger, particularly the Rectum, where the Symptoms are not altogether so acute, nor the Wounds so absolutely mortal.

If forwards, in the middle of the lower Part of this lowermost Region, just above the Pubes, the Urine discharging by the Wound, and other Symptoms of these nervous Parts affected, we discover the Bladder of Urine to be hurt, as the Womb may happen to be, a little higher up, and so of the rest, infer'd from the customary Accidents or Symptoms, together with what issues from the Wound, rather than wholly from its Situation.

Nor must you imagine that these Parts cannot be injur'd, because the Wound varies several Inches in its Appearance from our particular Descriptions: Since for Instance the *Liver*, taking up a large Compass, and filling the right *Hypochonder*, extends it self to beyond the Pit of the Stomach on the other Side, some Part lying over the same: Downwards also it reaches beneath the bastard Ribs on that Side, extending almost as low as the Navel before: So that a Wound happening any where within this

Compass, may not only enter the *Liver* but the *Stomach* also, lying under the Concavity thereof.

The *Spleen* takes up a Part, tho' not so large one, of the left *Hypochonder*, opposite to the *Liver*, betwixt the *Stomach*, and the Articulation of the bastard Ribs with the *Spine*, reaching down to the Edge of the lowermost.

Between these lies the *Stomach*, immediately under the *Midriff*, or Partition separating the *Thorax* from the *Abdomen*, being cover'd, as we said before, on the right Side by the hollow of the *Liver*, on the left Side adjoining to the *Spleen*: Behind lies the *Pancreas*, and forwards it is touched by Part of the Gut *Colon*, or the second so called of the larger or thick Guts: So that by this Scituation and Connexion, you see it may be possible for several Parts to suffer by the same Wound.

The *umbilical* Region is taken up mostly by the *Intestina Tenuia*, or the small Guts, which together with the thicker or larger, fill up a great Part of the Cavity of the *Abdomen*, winding about from one Side to the other thereof, in a very small Compass, considering their great Length, by their close Connexion throughout with the *Mesentery*.

The *Kidnies* are seated in the *Loins*, behind the *Intestines*, being each, in grown Persons, about five Inches in Length, reaching the Depth of three or four of the *Vertebræ Lumborum*, two or three Fingers broad, and an Inch or more in Thickness; the right *Kidney* being lower than the left: They are gibbous or convex to the *Loins*, and concave or hollow to the Cavity of the *Abdomen*.

The *Bladder* lies in the fore but lowest Part of the *Abdomen*, a Cavity formed by the *Os Sacrum* behind, the *Ileon* on each Side, and the *Os Pubis* before, which Cavity is called *Pelvis* the Basin; the Neck thereof bears upon the *Intestinum rectum*, whence in searching for the Stone, the Fingers, one or more, are introduced into the Fundament, to feel for the same, through the Coats or Membranes thereof; likewise in cutting by the *Gripe*, as it is called, the same being enter'd this Part, and the Stone explor'd thereby, is brought toward, and held close against the *Peritonæum*, where the Operator enters his Knife on one Side of the Seam, and cuts through the Neck of the Bladder upon the Stone it self, which he turns out of the Wound with his Hook, and this is called the lesser *Apparatus* in *Lithotomy*.

In the same Cavity is placed also in Women, the *Uterus*, as it were between the Bladder and Strait Gut.

Now as the *Lungs* and *Heart* are the principal contained Parts in the Cavity above, filling up in a Manner the same: So are these we have now enumerated the chief in this below, of which I have given only this slight Sketch, referring you for a more solid Instruction, to the Anatomy or Dissection of human Bodies, as we recommended at the Conclusion of our last.

I remember I once took a circular Measure of the *Abdomen*: And making the Navel my *Center*, divided the *Periphery* into several exact *Sections*, like those in the *Nautic Compass*: Then piercing each in several Places at exact Distance, and examining what Parts, and what Part of each Part, was prick'd by the Point of a Rapier thrust in, by measuring after from the Navel of another

another Person of common Growth or Stature, I have seldom err'd in my *Prognostick*, that what ever Part of this Region you prick'd directly deep enough, you must necessarily wound such Bowel underneath, and within few Lines Breadth, such a Part of the said *Viscus*, whether *Liver*, *Spleen*, *Stomach*, *Bladder*, &c. and this I extended not only to the Surface of the said contained Parts, but entering still deeper, or quite through, [if not slanting] I could preſage the Wounds of the *Pancreas*, *Kidnies*, *Gall-Bladder*, alſo the Trunks of the Blood-Veſſels.

The greateſt Uncertainty being in the punctur'd *Inteſtines*, and this by varying through their *periftaltic* Motion.

How far ſuch like Experiments might be improv'd, and with what Advantage to the *Præſagium Chyrurgicum*, I ſhall leave others who come after me, to determine: Whiſt I now give you an Account what Wounds are of themſelves commonly deem'd *mortal*: Which are thoſe of the *Brain*, *Heart*, *Lungs*, with the Trunks of Wounds the Blood-Veſſels; the *Diaphragm*, I mean its commonly nervous Part, the *Liver*, *Stomach*, *Small-Guts*, deem'd mortal. with the *Kidnies* and *Bladder*: Yet theſe are not without their Exception; as Wounds of the *Brain*, ſuch as have miſs'd the Blood-Veſſels in the *Lungs*, nay, perhaps the *Heart* it ſelf, if we may believe ſome Writers, alſo of the *Liver* and *Kidnies*, have been recover'd; as likewiſe thoſe of the leſs nervous Part of the *Stomach*, of the fleſhy Part of the *Midrif*, but eſpecially of the *Bladder*, are often healed: So that no abſolute Judgment muſt be given, till ſome deadly Symptom approaches; becauſe it has been often obſerved, that ſome Perſons by a ſingular happy Temper, or lucky Accident, have eſcaped

desperate Wounds, whilst others, by some ill one, or Irregularity committed, have sunk under those which were esteemed more light or trivial: Which leads us to the Cure of Wounds first of all of the *Breast*, and then of the *Belly*, so far as they admit thereof.

Wounds of the Breast penetrating. In Wounds penetrating the *Breast*, let the Surgeon introduce a small Tent, secured always with a Thread, for its after Extraction, and dipt before in the warm Liniment of *Arcaeus*, or mixt with a small Quantity of the *Ol. Hyperic.* with a Pledgit armed with the said Liniment, and a Plaister over it, fasten'd by rolling; when if no ill Symptom supervene, let the same be gradually lessen'd and shortned, till the Wound is heal'd up as a simple Puncture, by no Means distending it, which would hinder *Digestion*, by the Increase of *Pain* and *Fluxion*, as also *Inflammation*: But if any Accident or ill Symptom should accompany, as *Fever*, *Convulsion*, *Delirium*, internal *Hæmorrhage*, or the like; let the Physician be timely consulted, that by directing *Venesection*, together with some *Pectoral*, *Balsamic*, and *Traumatic*, or *Vulnerary* Prescriptions, the same if possible, may be averted: It being very plain that in these Cases, the great Stress lies upon *Nature*, assisted by such internal Medicaments, as in Cases of Inflammation, are best fitted to take off the *Tention*: To which Purpose beyond most others, conduce free *Bleeding*, *Pectoral Decoctions* and *Oily Draughts*, *Linctus's* also of the *Ol. Lini* and *Sperma Ceti*, mixt up with some of the *Pectoral* Syrups, such as the *Syr. Capil. Veneris* or *Dialth.* also the *Syr. Papav. Errat.* in Case of inward Bleeding; some proper *Restraining*, whether in the Form of *Electuary*, *Aposeme*, or *Julap*, with other *emplastic*

stic and *agglutinating* Remedies; which in the Physician's Absence, or where such Assistance is not to be had, but at great Distance, as in many Country Towns and Villages, you may direct your self.

Of the first Sort, are the *Cons. Rosar. Bals. Lucatel. Bolus verus, Ter. Japon. vel Ter. Lem. Lap. Hematit. Sang. Draconis, &c.* which may be mixt up with the *Syr. Balsam. de Rosis siccis. de Meconio*: *Juleps* may be prepar'd *ex Aq. Germ. Querc. Plantag. with a little of the Aq. Cinnam. Hord.* and the *Acetum destillatum*, also the *Tinctura Rosar.* acidulated with a few Drops of the *Spir. Sulph. vel Vitrol.* The *Suc. Urtic. Urent.* by it self, or sweetned with a little white Sugar, is prevalent also in these Cases. *Aposems* are prepar'd of some of the *styptic agglutinative Simples*, such are the *Rad. Symphit. Tormentil. Bistort. Fol. Plantag. Equiset. Pilosel. Millefol. Bursæ Pastoris, &c.* edulcorated *cum Syr. Myrtin. Cydon. Hederæ terrest. Urticar.*

Emplastics may be form'd into *Mucilages, ex Sem. Cydon. Malvæ, Plantag. Hyosciami & Papav. alb.* to which are added the *Gums Arabic. Tragacanth.* extracted in *Aq. Plantag. vel Sperm. Ranar.* some Forms of which by Way of Specimen I shall here present you.

R. Cons. Ros. rub. Cons. Rad. de Symphito ā. ʒj. Balsam. Lucatel. ʒʒ. Ter. Japon. Lapid. Hematit. Boli veri ā. ʒj. Sang. Draconis ʒij. Syr. de Mecon. q. s. m. f. Elect. cujus capiat Quant. Nuc. Mosc. Mane 4^a. pom. & h. s. superbibendo Haustulum Aposematis seq^{uis}.

R. Rad. de Symphito ʒj. Fol. Sanicul. Bugulæ ā. Mj. Hyper. Millefol. ā. Mʒ. Coq^{ur}. in aq. F. q. s.

Of Wounds of the Breast. Sect. V.

pro Colaturæ ℥℥. *sub finem addendo vini rubri*
 ℥iv. *Colaturaturæ adde Syr. Bals. Tolut. ℥j. & f.*
Aposema.

℞. *Cons. Rosar. ℥℥. Ter. Japon. ʒj. Alum. rup.*
 ʒ℥. *Extr. Thebaic. gr℥. Syr. de Rosis Sic. q. f. M.*
f. Bolus. vj^a quaque hora sumendus, superbibendo
Coch. iv. Julapij seq^{ti}s.

℞. *Aq. Plantag. recenter destillat. Gemmul. Querc.*
ā. ℥iv. Cinnamom. Hord. ℥ij. Coral. rub. ʒj. Sacch.
q. f. M. f. Julap. vitrum agitando tempore usûs.

℞. *Herb. Millefol. Plantag. Bellid. Urticar. U-*
rent. ā. q. f. ut ex Contusis exprimetur succus ad
Quantitatem ℥j.

℞. *Succorum horum depuratorum ℥ij. Syr. de*
Meconio ℥ij. m. f. Haustus quarta quaque hora su-
mendus.

℞. *Aq. Gemmul. Querc. ℥ij. Aceti destillat ʒij.*
aq. Cinnam. Hord. Syr. de Mecon. ā. ℥℥. m. f.
Haustus.

℞. *Cons. Rosar. ℥j. pulv. Amili ʒij. Ter. Japon.*
ʒj. Album. Ovor. conquassat. q. f. ut formetur
Loboch cujus capiat Cochlear singulis vel alternis
horis dum perstet fluxus.

℞. *Tinct. Rosar. Bateanæ ℥j. capiat Coch. vj.*
vel vij. in intervallis.

But farther to assist Nature in healing of the internal Wound, the Blood is moreover to be imbued with the sanative Virtues of some proper *Vulneraries*, made into a *Diet* for the wound-
 ed

ed Person: Whence they are denominated *Traumatic*, of which Number, besides some of those already recited, are these following, viz. *Fol. Scabiosæ, Saniculæ, Bugulæ, Verbenæ, Pimpinell. Marrub. Alchimillæ, Veronicæ, all the Capillaries, the Fol. Agrimonix, Herniariæ, Quinquefol. Osmundæ Regalis, Hyperic. Tussilag. Lunariæ, Pyrolæ*: With several others, out of which the judicious Artist may chuse what he likes best, or what may be most fitting for his Purpose.

*Vulnerary
Plants.*

But in the Use especially of the more *restringent* and *emplastic* Remedies, it is necessary we distinguish the proper Times of their Exhibition; lest we still farther coagulate the Blood that is already thrown out of the Vessels, and supposing it to arise from some of those wounded in the *Lungs*, thereby shutting up the same, instead of forwarding the Discharge, endanger Strangling of the Patient: To obviate which, we must put you in Mind, that you continue these or the like Prescriptions, no longer than whilst the Blood comes fresh from the Wound; after which, for disburthening the Parts of what is *extravasate*, and would otherwise putrefy therein, you must admix some inciding and attenuating Medicines together with your *Restringents*, avoiding however all such as are hot, in order to promote the Expectoration thereof. To which Purpose, beyond most others, conduce those which are somewhat acid, as the *Syr. Acetos. Limon. de 5 rad.* mixt up with the *Syr. Myrtin. Urtic. Urent. vel Hederæ terrest.* to these may be likewise added for the farther lubricating of the Parts, and rendring the Discharge as well as Respiration easy, a little *Ol. Amygd. d.* or the *Ol. Lini*. Or where there is Danger of a fresh Eruption, the same may be formed into a *Linctus*,

with the *Pulv. Amili*, and a little of the *Conf. Rosar*.

If the Wound were in the *Stomach*, so soon as the Mouth of the bleeding Vessel is closed, for dissolving the Grume already coagulate, a Draught of *Oxycrate* may be convenient, or the Julap above directed, with a little *Acetum* added thereunto, may be exhibited, four or five Spoonfuls at a Time; after which you are to direct the *Pulvis rad. Rhei* to ℥j. or 3℥. gently to move the same downwards by Stool, taking special Care to avoid whatever may occasion Vomiting, for Fear thereby the Vessel should burst forth afresh.

For the same Purpose of dissolving the congeal'd Blood, are also directed the *Antimon. Diaphoret. Ocul. Canc. Mumia, Rubia Tinct.* with some others, which we have noticed in a former Treatise where we speak of *Contusions*.

During this, you must take Care, that the wounded Man's Diet at these Times, be such, as may refrigerate and incrassate his Blood: His Drink a Tincture of *Roses* extracted in the *Smith's Water* with red Wine moderately acidulated first, and then adding a Bit of Loaf-sugar, or an Emulsion of the cold Seeds: His Food Barley and Rice Grewels, boil'd up with a little Comfry Root, the Jellies of Hart's Horn, and Ivory, also Isinglass, together with those of the Extremities of Animals, such I mean, as the Neats, Calves and Sheeps Feet, which by their lentous or viscous Particles, serve well at these Times to thicken the Blood, and retard its Motion or Fluxility.

I have been the longer upon this Symptom, as being a very common Attendant upon penetrating Wounds of the *Chest*; and where it kills not instantly by its vast Profusion, as in the Division

sion of the great Vessels, lays the Beginning some Times for Want of Care, of a *Phthisis*, or Consumption of the *Lungs*, by turning to an *Empyema*, and apostemating in the Cavity, or putrefying therein, induceth *Gangrene*, and *Sphacelation* of the Parts, more suddenly and certainly destroying the Patient.

The other Symptoms of *Fever*, *Syncope*, and *Convulsion*, are so entirely Consequents of the Inflammation of the *nervous* and *membranous* Parts hurt, as to require nothing more peculiar, than what is level'd at the same, and to take off the *Tention* thereof; which being effected, these Accidents or Attendants vanish usually of themselves: But where this continues, and cannot be removed neither by Bleeding, nor any other Derivation or Revulsion of the offending Humour, the *Orgasm* of the Spirits still increasing with the Irritation of the *nervous Fibrillæ*; no Wonder the whole *System* is drawn into Consent, and an universal *Spasm*, as it were, subverts or unhinges the Animal Fabric. But to proceed;

Whilst the Physician is thus endeavouring the Patient's Relief, the Surgeon must be careful to keep open the Wound, if he finds the outward Orifice thereof is likely to be of any Service to him, in discharging any Blood or Matter; till the Symptoms go off, and that the same will no longer flow out thereat; lest otherwise effused, as we observ'd but now, they raise an *Abscess*, which may after turn to an incurable *Fistula*.

For preventing which, at the Times of dressing, he must incline his Body to such a Posture, that the said Blood or Matter, if possible, may be emptied thereby; in the like Posture he must be laid in his Bed, at least sometimes, if practicable, and that he can lie without Pain.

But

But if the Wound be only a small *Puncture*, far above, or otherwise remote from the Parts hurt, and by which an Exit cannot be obtain'd for any Humour extravasate ; it will be to little Purpose to cram in Tents into such a Wound, or to create farther Uneasiness to your Patient by so doing.

*Cautions
about In-
jections.*

At such Times it is propos'd by some Authors, that you should throw in certain *vulnerable De-coctions*, or other Liquors, by Way of *Injection* into the Wound by a *Syringe*, either to *digest*, *mundify*, or heal inwardly ; but this is a Practice, I think too hazardous, unless you can be sure of a Passage out again for such Liquors, which is oftentimes very uncertain : Wherefore passing them by, I should rather advise you to commit the whole to *Nature*, assisted by the Efficacy of one or other of the fore-mention'd internal Prescriptions, as there shall be Occasion ; and where the outward Orifice is like to be of Service, to keep it open, not by cramming in of hard Tents, and choaking in the Matter ; but when it is like to be a Work of Time, by fitting the Passage with a handsome *Cannula*, or Pipe of Silver, by which some Parts at least of the Humour may drain off, whilst others being rais'd in *Expectoration*, carried downwards by gentle *Purgation*, or finally absorb'd by the Vessels, and conveyed to the *Kidneys*, sent forth by Urine, which has been incontestably the good Hap of some, this Way escaping the most imminent Dangers ; in a Word, when in Opposition to your best Endeavours, a *Fistula* does ensue, you must either continue your *Cannula*, or turn the Ulcer into a *Fontanel* ; whilst in the mean Time, you try to temper and soften the Blood, or to extinguish the *hectical* Flame usually

usually at these Times inkindling therein, with a medicated *Aq. Calcis*, a *Sarsa* or *China Decoc-tion* with Milk, *Afs's Milk*, and other the usual Methods for *hectical* Patients, which these in a short Time become; or as customarily prescribed for a *Pulmonary Symptomatic Phthisis*, to which in like Manner they are subjected.

These I think are the most material Directions to be given in Regard to the Wounds of the *Thorax*, unless you accept this farther Remark, that in those penetrating quite through, we are caution'd not to keep both the Orifices open at the same Time, for Fear of choaking the Patient: For hereby the *Lungs* would be compress'd, and the natural Constriction and Dilatation of the Cavity impeded, to the Hindrance of Respiration.

A Couple of *Sharpers* frequenting a *Billiard-Table* in *Moorfields*, abusing a young Gentleman at Play; upon some ill Language given, a Quarrel arose, and one of them drew his Sword; upon which the Gentleman drew also in his Defence, and before they could be parted, at the second Pass, putting by the first, he receiv'd a Wound by his Adversary's Sword, entring in on the Outside of the *Papilla*, and coming out behind at the *Scapula*.

HIST.
lviii.

I being sent for, found him somewhat *anxious*, and spitting, or rather hawking up a spumous florid Blood, tho' in no great Quantity, and much heartier, than could reasonably have been expected in so seemingly desperate a Wound: When the Assailant was secur'd, and I had taken away near xxij . of Blood from my Patient's Arm; for the Cause of Derivation, and abating the Plenitude of the Vessels, which therewith abounded, I went along with him to his Lodging near adjoining;

adjoining; where, upon examining the same more strictly, I perceiv'd the Thrust was made by a narrow Rapier, which, tho' passing through, had made an Orifice on the *pectoral Muscle*, scarce half an Inch in Breadth; that behind little differing from the Puncture of a Lancet in *Venesection*; and from whence finding no Benefit like to ensue, by forcing open the same, I dress'd only with a small Pledgit of *Liniment*, and an Emplaster over it, as a Matter of little or no Moment to our Advantage in the Cure: But into that upon the Breast, I pass'd a Tent dip'd into the same made warm, and put him to Bed. When Mr. *Bernard* came, who had been sent to first, and who enquiring into the Circumstances, approved what had been done.

The next Day, a Physician was call'd in, on whose Prescriptions lay indeed the main Strefs; by whose Order a *Linctus* was prepared *ex Syrupo de Symphito de Rosis siccis Urticar. Urentium, cum Pulv. Gum. Arab. & Tragacant.* also a *Pectoral Traumatic Decoct. ex Rad. Symphit. Fol. Plantag. Sanicul. Bugul. cum herbis Capillaribus ac Fol. Tussilag. in Aq. Hordei coctis, cujus Colaturæ ℥ij. ʒj. Syrupi Bals. Tolut. fuerit addita*, in order to thicken the Blood and consolidate the wounded Lungs by their agglutinative Property; besides which he took a Bole Night and Morning, *ex Sperm. Ceti ʒj. Bals. Lucatel. ʒß. cum Pulvere Rad. Rhei ʒß. & q. s. Syr. Viol. ut f. bolus*; drinking thereupon a Draught of his Wound-drink, that during the Use of the former incrassating Remedies, no Grumes might be shut up in the *Bronchiæ*, nor his Expectoration prevented of what was necessary to be that Way discharged: And farthermore for his Cough, another *Linctus* was prescribed, to lubricate the
same

same Parts, moderate at least the Irritation upon the Wind-pipe, and hinder the fresh Rupture of the Vessel, thus

℞. Ol. Amygd. d. ʒiʒ. Syr. Bals. Tolut. Papav. Rhæados ā. ʒʒ. Syr. de Meconio ʒj. Sacch. cand. alb. Pulv. q. s. M. f. Eclegma, de quo capiat Cochlear mediocres Tussi magis molestante, & superbibat Haustulum tepidiusculum Aposematis traumatici prius præscripti.

Lastly, to temperate the Heat of his Blood, increas'd by the *Symptomatic* Fever, he drank between Whiles an Emulsion of Almonds and white Poppy Seeds, in a Pint of which was dissolved ʒj. of *Sal Nitri* with ʒʒ. of white Sugar Candy.

When I had dress'd him for a few Days, the Wound behind being closed up, that likewise on the Pap making no Discharge either of Blood or Matter, more than the common Digestion from the Wound on the outward Parts; considering its Situation, and the small Prospect of any Benefit thereby, we concluded upon shortning of the Tent, and suffering it to heal up, committing the whole of the Solution internally in the Lungs to *Nature* and the Physician, with this joint *Prognostic*, that if an *Empyema* did not ensue, or an *Abscess* formed in the Cavity; yet if the Wound in the Lungs should not admit of healing; but the *Hæmoptoe* still continue, there must ensue necessarily a *putrid Hætic Fever*, and a *Phthisis* must be the Conclusion: To obviate which, so far as possible, at our last Consultation, it was agreed to put him upon the *Ass's Milk*, with which in Regard of his Cough, and still bringing up Blood thereby, he took a Morfel of the following *Electuary* by the Physician's Direction.

℞. Conserv.

Rx. Conf. Rosar. rub. ℥j. Sem. Papav. alb. Pulv. ℥ij. Coral. rub. Gum. Arabic. ā. ℥j. Ter. Japon. pp. 3℔. Syr. de Symphito q. s. M. f. Elect. de quo capiat ad Magnitud. N. M. Maj. Summo Mane & V^a. Pom. superbibendo 1℔℔. Laet. Asinini recenter mulcti.

Yet notwithstanding this Method was prosecuted several Days with some Advantage, his Bleeding lessening thereby, his Respiration free, his feverish Heat repress'd, and his Strength much recruited; after about a Fortnight's Discontinuance of the *Regimen*, eating Meat as usual, and taking a Glass of Wine, upon every light Fit of Coughing, his Bleeding would return as he thought; tho' rather the latter produced the former; his Fever also appear'd with Flushing in his Cheeks, a *Paroxysm* each Afternoon, and *colliquative* Sweats in the Morning; upon which our *Prognostic* being like to be verified, Dr. *Tyson* was call'd in, and thought proper to take away more Blood, and to try the *Cortex* in the Manner following.

Rx. Pulv. Cort Peruv. ℥ij. Syr. de Meconio q. s. M. f. Bolus sumendus & repetendus 4^a. quaque hora in intervallis Paroxysmi, superbibendo Cochlear. quatuor Julapii seq^{ti}. cujus totidem capiat in languoribus præcipue Mane Sudoribus obrutus, tempore usus Vitrum agitando.

Rx. Aq. Laet. Alex. Ceras. nig. ā. Ziv. Cinnamon. Hord. ℥ij. Pæon. C. ℥j. Margarit. pp. Coral rub. pp. ā. ℥ij. Sacchar. Chrystal. q. s. M. f. Julapium.

For his Cough he had the following *Linctus*, of which he took a Spoonful between Whiles, as the same was troublesome. *Rx. Syr.*

R. Syr. de *Symphito* Syr. *Bals. Tolut.* Syr. de *Meconio* a. $\mathfrak{z}\mathfrak{j}$. Troch. Gordon. pp. $\mathfrak{z}\mathfrak{i}\mathfrak{ss}$. M. in-
star Linctus.

By that Time he had thus taken $\mathfrak{z}\mathfrak{v}\mathfrak{j}$. of the *Bark*, he mist his Fever-Fit, his Sweats were moderated, and his Bleeding entirely disappear'd; so that now taking a Dose only Night and Morning for a Fortnight longer, he grew daily stronger, beginning to recover his former sanguine Complexion, and going into the Air, he prosecuted his former Method of the *Ass's Milk*, and a Milk-Diet in general, returning after six Week's Time, as hearty and well-flesh'd as before.

Whence by the Way, I desire it may be remark'd, as has been for some Time past, by our best Physicians here in *London*, that in all *Hæmorrhages* whatever, accompanied with a febrile Effervescence stir'd up in the Blood, especially attended with *Exacerbation* and *Remission*, and more especially *Intermission*, whether by the *Nose* in a *Stillicidium*, the *Lungs* by *Sputation*, or *Excreation* in Coughing, from the *Stomach* by *Vomiting*, the *Uterus* in a *Profluvium*, vel major quam par sit *Catameniorum Fluxus*; from the *Anus*, by an immoderate *Hæmorrhoidal* Discharge of this Treasure of Life, the Blood; you will find no Remedy so powerful as the *Cortex Peruvianus*, which not only as an *Ischæma* or common Blood-Stancher, by a mere *Stypticity* constricts the Mouths of the bleeding Vessels, but by a peculiar specific Property extinguisheth the febrile Ferment, and invigorates the Tone of the Blood, removing the Cause of the Disease, and preventing a Relapse: Whilst the other Tribe of agglutinating, emplastic and restrictive Medicines, palliate

palliate only for a Time, by shutting up the Mouths of the Vessels, but have no Influence upon the Cause of many of these fatal *Hæmorrhages*, the feverish Ferment, the Thinness of the Blood, or other *Dyscrasy* of the Juices thereof.

Of Wounds of the Belly. Of Wounds of the *Abdomen* or lower *Belly*, in Regard of their *Diagnostic* or *prognostic* Signs, we shall need to say nothing more than what we have already deliver'd, in discoursing of those of the Breast just before ; between which there is also, I think, this Difference, even in those of the containing Parts, that these latter, *viz.* of the Breast, affecting only the external Parts, are not altogether so subject to the Accidents of Pain and Inflammation as the Wounds of the Belly ; which, by Reason of the *Aponeuroses* or tendinous Expansion of the *oblique* and *transverse Muscles*, as also of the Nature and Office of the *Peritonæum* under them, are very liable to both ; as is also their Union much retarded by the incessant Motion of the *Diaphragm* in Respiration, as well as at some Times in the Extrusion of the intestinal *Fæces*, wherein these Parts are much concerned ; which makes me wonder, that our learned *Lecturer* Dr. *Read* should intimate, that these Wounds not penetrating, are cured without any Difficulty, as Wounds in other fleshy Parts of the Body ; it being certain, that we find them oftentimes attended with unhappy Accidents, which retard their Cure.

To obviate which, having stitch'd up the Wound, if the same were any thing large and deep, as the Patient lies along in his Bed, let him be there confin'd, contrary to what he need be some Times, if the Wound were higher up on the Breast ; and an exact *Regimen* of the other

other *Non-naturals* duly observed: Above all, let his Bowels be kept empty with *emollient Clysters*, if subject to *Costiveness*, or with some *Carminatives* intermixed, when oppressed by *Flatus*, that he may not be under Necessity of straining to go to Stool, or pained by the great Tension of the Parts underneath, occasion'd by Wind pent up therein.

Bleeding and *Anodynes* are here also convenient, to keep under the Inflammation, divert the Fluxion, and promote Quiet, above all Things desirable at such Times, together with some lubricifying *oily Draughts*, *pectoral Linctus's* and *Apo-soms*, if subject more particularly to a Cough, that dreaded Symptom under these Misfortunes, and known Obstacle to the Cure.

The Wound, as we observ'd, stitch'd up, may be dress'd with *Arceus's Liniment*, with a small Addition of the *Ol. Hyperic. vel Lumbric.* especially in hot, dry, and thin Habits of Body, laying a Defensative over the Pledgit, whilst the Belly round about is embrocated with the same Oils, or the following Mixture, which I prefer.

℞. *Ol. Amygd. d. ʒj. Sperm. Ceti ʒij. Ol. Lumbric. ʒβ. Ol. Anis. Chym. ʒj. M. pro Litu ad partes vulneratas circumcirca.*

Likewise at the Times of Dressing, three or four warm Stuphs express'd from the hot Decoction of the *Fol. Malvæ verbasci Hyperici Centauri cum Flor. Chamomel. Sumbuci, Meliloti*, made in Spring-water, with the Addition of a little Brandy at the Time of using: And when you dress up, let him be gently swathed round about his Body, not only for the Security of the Dressings in turning about, but for a Support to the

Parts, and preventing the Shock of the same in *Coughing*; taking Care however it be not so strait as to create Pain or Uneasiness thereby, keeping your Patient thus confin'd to his Bed till the Agglutination is confirm'd; or in Case the Stitches break through, or by Reason of the attending Inflammation, are forced to be divided, till the Wound is incarnated and perfectly skin'd over: lest otherwise permitting him to rise and walk about, the Bowels in the erect, or sitting Posture, bearing against the *Peritonæum*, new Accidents arise, and fresh Disturbance to the Procraftination of the Cure.

In *Wounds* of this *Region* penetrating the Cavity, where they happen to be so large as to let through the contain'd Parts, you are immediately with a warm Cloth moisten'd in Wine, to replace them: But if the *Omentum* or Caul, usually appearing first, where the Wound especially happens above the Navel, has by long exposing contracted any Taint from the Air, to which by its Contexture it is more prone than the other Parts; what you find corrupt is to be cut off, making Ligature above, to secure any Effusion of Blood however small; and then replacing the Remainder with what other Part of the *Viscera* is fallen out, when you are to make the particular *Suture* we formerly observ'd as peculiar to these Parts, and thence denominated

Gastrorha-
phia. *Gastrorhaphia*; wherein you first, with a crooked Needle well armed with a strong waxed Thread, take Hold of all the outward Teguments, but leaving the *Peritonæum* yet untouch'd, then on the Side opposite from within outwards, you take up the *Peritonæum*, together with the Muscles and Skin; after this at proper Distance somewhat short of an Inch, you pass your Needle through

through from the outside on the same you last perforated, and quit the *Peritoneum*: When opposite from within outwards, you take it up again; so proceeding according to the Length of the Wound, leaving it on one Side, and taking it on the contrary, which is intended for the firmer agglutinating this Part with the Muscles, and thereby obviating a *Prolapsus* of the Bowels, which might otherwise happen, and *Herniæ* ensue upon these Accidents.

There is another Way of practising this *Suture* in the continued Stitch, perform'd by two Needles armed with the same Thread, but I think the former less troublesome, and full out as safe, if not more free from Accidents.

The Wound thus secur'd by your *Suture*, you are to proceed after the Manner before directed, with the warm *Liniment* for your Digestive: And if in those of the outward Teguments in this Part, we thought it necessary that the Patient should be confined to his Bed, even during the whole Time of his Cure, we must surely think it is much more so at these Times, even absolutely to be commanded, in as much as the Bowels have now no Fence, all the containing Parts being here divided.

But farther, when together herewith, the contained are likewise hurt or wounded, as the *Stomach, Liver, Spleen, Kidnies, Intestines, &c.* the Case is often desperate and fatal: Altho' sometimes, as we have remark'd in the general *Prognostics*, many which have been so deemed, have been recover'd; however, all that the Surgeon can do, I think, at these Times, is, if the same be small, as by a Rapier or Penknife, to dress up with a soft Tent dipt in the Digestive as before, and fasten'd with a Thread, to pre-

Caution about the Use of Tents.

vent its slipping into the Cavity of the Belly, as we directed in the penetrating Wounds of that above: In keeping open which, the like Cautions are here requisite, as were there directed; in Particular, that if you can propose any Advantage by draining off the extravasated Blood or Matter, the same is to be continued for such Use: But if so scituate or so small, that no Benefit is like to accrue thereby to your Patient, you must not excite farther or fresh Disturbance by the forcing in of unnecessary Tents, but content your self in dressing only the outward Orifice with a Pledgit of your Digestive, leaving the rest to *Nature* and the Physician, whose Province it is now to attend and encounter the Symptoms, regarding the *vital* Indications, and prescribing proper *Cordials* to support the languishing *Spirits*: Whilst at the same Time he directs also such agglutinating, balsamic and traumatic, or vulnerary Potions, or other Forms of Remedies of like Nature, as may contribute to the consolidating or cementing the wounded Parts: *Anodynes* and *Narcotics*, where there is a Call for them, to blunt the Pain, and promote Rest; *carmine* native and *emollient* Clysters when needful, to correct Wind, and empty the Bowels; with whatever else may conduce to the Recovery of the wounded Person, as we have at large observ'd in our last Section, concerning Wounds in general.

Farther, if the Wound is so scituate and large withal, as that the keeping open the same is like to be of Service for the Discharge, you must then, as we observ'd but now, let a soft Tent be introduced dipt in the warm Digestive, continuing the same till the Matter ceaseth to flow out, these Parts not suffering the *Cannula*, as those of the *Breast*, nor will the Practice by *Injections*

jections succeed better than they do there, at least in my Opinion.

Whatever *Viscera* are hurt within, the *Chy-rurgic Indications* are much the same, that is to promote Digestion of the Wound, and procure all he can an *Exitus* thereby, for any Blood or Matter lodging in the Cavity, and otherwise like to putrify therein: But the internal *Regimen* must be varied according to the Indications, and the diverse attending Symptoms, the Principal of which we have already taken Notice of, and therefore shall take leave of these Wounds of the *Venters*, having spoken two or three Words of those of the thicker Guts, in which the Patient stands a better Chance for an Escape [tho' here also the Odds are much against him] than in the smaller and thinner.

In the former then, where the Wound is large enough to require it, you may make your *Suture* where you can come at the wounded *Intestine*, but which differs from the rest, as we took Notice in our last, under the Name of the *Skin-ner's* or the *Glover's* Stitch there described; yet I am inclinable to believe this multiply'd Perforation of these however more carnos Parts of the *Alimental Duct*, which may be here more properly term'd *Excremental*, are liable to more Danger of *Inflammation*, if not *Gangrene* and *Convulsion*, than the *Suture interrupted*; which being made somewhat nearer each Stitch to the other, may answer doubtless the same Intention of uniting the Division, the Threads after fastning, being left hanging out of the Wound, together with those which belong to the outer *Teguments*, when after Agglutination, by Means of some *Sarcotic* Powders sprinkled thereon, or a Feather dipt in the warm *Balsam of Turpen-tine*,

tine, and lightly smear'd over, they cast off together with the rest, or lying loose, are gently without the least Force to be drawn out with the *Forceps*.

In these last Wounds, I mean of the *Intestines*, as well as those of the *Ventricle* or *Stomach*, it must be own'd we have this Advantage, that the *vulnerable* Medicaments can more directly and readily come to the griev'd Part in the latter, the *Wound Drinks* and *Potions* taken in by the Mouth, falling immediately upon the same: So likewise in the former, *terebinthinate Clysters* and *vulnerable Decoctions* may be easily injected, with more Energy and less Delay, communicating their salutiferous Qualities, than when convey'd the round-about Way of the Circulation.

HIST.
lix.

Captain H—y of the *Guards*, having been drinking hard with Mr. P—r the *Surgeon*, coming over *Moor-fields*, they drew and push'd at each other in the Dark, where the Captain in the Rencounter had the Misfortune to be prick'd in the Belly, upon which, reeling on one Side he was supported by some others in their Company, Mr. P—r making his Escape, and brought into the *Maggie-Tavern*, next Door to my Habitation, at that Time without *Bishopsgate*, where I found him faltering as well in his Limbs as his Speech; but his Companions telling me he had been drinking, and was full of Wine, I entertain'd the more Hopes, till coming nearer, and finding his Pulse scarce perceptible, with cold, clammy, and as it were *agonistical* Sweats, with constant *Singultus*, I was almost ready to pronounce his Wound *mortal*, before I had seen it: Which now examining, I perceiv'd an oblique Puncture about a Hand's breadth from the Navel,

Navel, somewhat Sideways, just below the bastard Ribs, flanting into the Cavity of the Belly, into which, when I had fitted a Tent dipt in the warm Liniment, I introduced the same about an Inch, first securing its Extraction by a Thread fasten'd thereunto, with a Plaister and soft Bolster over, and gentle Swathing round his Body to retain them: Then putting him into a warm Bed, I directed only the following *Linctus* for the present, to be taken by Spoonfuls, desiring if he surviv'd that Night [it being then late] we might have a Consultation early the next Morning.

R^o. Ol. Amygd. d. ʒiʒ. Syr. Dialth. Capil. Ven.
ā ʒʒ. Sperm. Ceti exquisite mixti ʒj. M. f. Linctus.

I would willingly have drawn off some Blood, but found him indeed so languid, as to be incapable of such Evacuation.

By nine of the Clock next Day, I had a Message brought me by his Friends, that Serjeant *Bernard* and Dr. *Blackborn* would be with me at Ten, at which Time accordingly they came, and entring the Patient's Chamber, found him under a *Paraphrenisis*, talking incoherently, with his *Singultus* between whiles: However, his Pulse was so raised, that we agreed immediately to draw away ʒxij. of Blood from his Arm, to take off the Tention and Inflammation of the Membranes: Then taking a Survey of the Wound, Mr. *Bernard* observing by the Extraction of the Tent, which Way the Sword had entred, contented himself, without making any Probation of these very sensible nervous Parts, by which no Advantage could accrue to the Patient, but hazard of Convulsion through the Irritation

ritation of the same : So that having again dress'd up as before, we gave our Opinion, that these direful Symptoms were owing to the nervous Part of the *Diaphragm* being wounded. Afterwards retiring to consult what was farther to be done in a Case so likely to prove fatal, we both readily agreed to the Physician's Proposal of throwing up a *Terebinthinate* Clyster in the Form following.

R. Decoct. Emollient. pro Clyst. ℥x. Ol. Lini. rec. ℥iv. Terebinth. Venet. cum Ovi Vitel. Solut. ℥β. M. f. Enema quam primum injiciendum, & rejecto illo, capiat Haustulum sequentem Oleosum anodynum.

R. Ol. Amygd. d. ℥iβ. Syr. de Meconio ℥vj. M.

By the former he rationally proposed to empty the Bowels, as well of the *intestinal Fæces*, as any imprison'd *Flatus*, dilaniating or twitching the *nervous Fibrillæ* : Likewise by its kindly Warmth, and balsamic Particles, to comfort, like a *Fetus*, the Parts of the lower Belly, at least within the Reach thereof. By the latter, to lubricify and relax the same, by which their Crispature from the Tention and Inflammation, might be also removed, and the Outrage of the Spirits demulced or assuaged by the Oil thus assisted with the *anodyne* Syrrup : Which Point if we could gain, there would be Grounds to hope at least, that the *Singultus* and *Delirium* also, as a Consequence of the Irritation, and inordinate Motion of the Spirits, would quickly cease.

As a farther Help, he directed the following *Bolus* to be got down whole, or dissolved, once in six Hours, with three or four Spoonfuls of the

the Cordial Julap, in order to moderate and blunt the Force of his *Cough*, which made him cry out dismally; the *Linctus* I had before ordered, was repeated, only adding *Syr. de Meconio* & *Papar. rhæad.* in the Room of the *Dialth.* & *Capil. Ven.* after a Spoonful or two of which, as the same prov'd troublesome, he drank a warm Draught of the *Pectoral Apofeme*, here described with the rest.

Rx. Pulv. e chel. Canc. C. Sperm. Ceti ā. *ʒj. ol. Anis. gut. ii. Syr. Capil. Ven. q. f. M. f. Bolus.*

Rx. Aq. Cerat. Nigr. aq. flor. Chamam. ā. ʒiv. aq. Theriacal. ʒij. Pæon. C. ʒj. Syr. Pæon. C. ʒvj. M. f. Julap.

Rx. Decoct. Peñ. depurat. Hiß. Tinct. Croci aq. Theriac. extr. Syr. Bals. Tolut. ā ʒj. M. f. Apofema.

Having thus provided what his Case requir'd, and given Orders to his Nurse for his other *Regimen*, we took leave with this *Prognostic* deliver'd to his Relations, that his Life was in the most imminent Danger, and that we could scarce expect to find him alive next Day: Yet notwithstanding upon the Discharge of his Clyster with a plentiful Stool, he came a little to himself, complaining still of great Pain of his Belly, with his *Hiccup*, tho' not so frequent as it had been, but his *Cough* was insupportable; so that in the Evening visiting by my self, in order to appease the same, besides his *Linctus* and *Pectoral Apofem*, I gave Direction for his oily Draught to be repeated with ʒj. of the *Syr. de Meconio*, which put him upon Slumbering. Very early the next Morning I went up to him,

and

and understood he had slept but little, still groaning in his Sleep, and starting with a *spasmodic* or convulsive Kind of Respiration, his Pulse was now again depress'd, and his cold Sweats upon his Face: He complain'd exceedingly of the great Soariness of his Belly, which he could scarce suffer to be touch'd, and which upon touching felt exceeding Tense. I then sent presently to the Apothecary for the following *Liniment*, with which, with my warm-Hand, I bathed gently the whole *Abdomen*; and for the easier coming at the same after, instead of the Roller, which he could not suffer, I placed the Middle of a large fine Napkin under his Loins, and pin'd over the two Ends before.

R. Ol. *Amygd. d. Lumbric. ā. ʒj. Ol. Laterit. ʒʒ. Anisi. chim. ʒj. M. pro Litu.*

I then sent to acquaint my Assistants, both *Physician* and *Surgeon*, that the Captain was still alive, and desir'd to see them; when about Noon, after he had been embrocated, falling into a Sleep of near an Hour's Continuance, he wak'd easier, and was somewhat refresh'd: Dressing of the Wound in their Presence, the Tent came out, but without any Appearance of *Digestion*, or any Humour flowing out therefrom; upon which it was agreed to shorten, as well as lessen it, that it might pass without any Disturbance, there being no likelihood of Service from the same.

We found him well compos'd in his Head, his Breathing easier and less interrupted by his *Singultus*, his *Cough* also moderated, his Pulse returning with high Colour in his Face; whereupon for his farther Relief, it was in this Consultation agreed to take away ʒx. more of Blood, which

which he bore well, and seem'd easy thereby; even before I had loosen'd the Ligature, his Pulse mending, and his Respiration still freer: After this the *Turpentine Clyster*, the *Anodyne* oily Draught, and the other *Regimen* were order'd to be repeated.

The third Day we met again, when we began to entertain some Hope of his Recovery, the Wound appearing well digested, and the Symptoms of *Hiccup*, *Cough*, and *Tention* also of the Parts, abated: Insomuch, that the Day following, finding him still in better Condition, Mr. *Bernard* took his Leave, but the Dr. attended a Week longer, keeping him to his lubrifying Method of the oily Draughts, with half the Quantity of *Syr. de Meconio*, the *Sperma ceti Bolus's*, with his *Linctus* and *Pectoral Decoction*; about which Time the Wound was just heal'd up, unless the outward Orifice; whereupon leaving off the Tent, I plac'd only a Pledgit with the *Digestive*, and a Plaister to secure it. The Patient finding himself perfectly easy, and, as he apprehended, now free from Danger, got out of Bed, and sitting up, was prevail'd on by some other Officers, who came to visit him, to drink two or three Glasses of Wine, whence he grew restless again in the Night, and relaps'd into his convulsive Breathing, his Fever likewise returning.

Being call'd up to him, and examining his Pulse, I immediately took off $\frac{3}{4}$ zij. of Blood more, and order'd his *Anodyne* oily Draught to be presently given him, which in an Hour's Time so compos'd him, his Bleeding taking off the *Inflammation*, that the Day following the Dr. coming again to visit him, found him with little or no Complaint; however, having been
two

two Days without a Stool, the common emollient Decoction with \mathfrak{zj} . of *Mel. Mercurial.* and as much of the *Syr. Viol.* was thrown up as a Clyster, and an oily Draught to be taken every Night for three or four Days; when advising him to an exact *Regimen*, and a steady Perseverance with his *Grewels*, *Chicken-Broths*, and *Panada's*, abstaining from *Wine*, *Flesh*, and *Malt-Drink*, and rising only to have his Bed made for at least three or four Days, if not a Week longer for his Security, he also took his Leave, as I did few Days after; his Wound being closed up, and himself in this Manner escaping the exceeding great Danger of his Life.

Thus having dispatch'd the Wounds of the *Head* and *Face*, as also those of the *Neck*, as well as *Thorax* and *Abdomen*, it remains for us to take Notice of those of the *Limbs*, to which belong also the *Joints*, *Ligaments*, and *Tendons*.

Wounds of the Limbs. The *Limbs*, which are chiefly composed of the Muscles, are liable oftentimes to Accidents of this Kind, which if happening clear of the *Joints*, and the fleshy Parts only affected, the Hurts are much less formidable, since if they heal not by the *first Intention*, *Nature* is seldom wanting in furnishing Materials for the regenerating new Flesh, that the Breach may be made up by the *second*.

Besides, we have here a very considerable Advantage, I mean that of *Compress* and *Bandage*, by which alone, or with an outside Dressing well manag'd, and the Aid of a *balsamic* Blood, we find often the Thrusts of a Rapier quite through the Limb, entirely united in forty eight Hours Time, and in larger of the same Parts, that happen *secundum longitudinem*, *Nature* and the

the *Bandage*, with a superficial Pledgit dipt in a good *vulnerable Balsam*, very frequently perform the Work. But in *transverse* Wounds, where large Bundles of the *muscular Fibres* are cut in sunder, the same from their native Tensity, will withdraw themselves at each End, their *tonic* or *oscillatory* Motion now ceasing, by which Retraction the Wound necessarily gapes wide open, so that the *Suture* will be here wanted to bring their divided Parts nearer together: And where these fail, as they are apt to do, by Reason of the Convulsion of the other Fibres, the Interspace is diligently to be *incarn'd*, as we have before observed; for promoting which, the *Hæmorrhage* restrain'd, the same *Digestives* and *Agglutinatives* are requir'd, as for the Wounds of the other Parts, I mean the *Terebinth. cum Ovi Vitello*, *Linimentum Arcæi cum Ol. Hyperic.* or melted down with a little *Basilicon*, which tho' forbidden to the *nervous* Parts, in *flesh Wounds* is now very allowable; for agglutinating there is nothing preferable to the *Bals. Tereb.* with a little of the same *Liniment*; and in the Management of these Wounds, where you have any Hopes of their *Symphisis*, or uniting of their Lips, having made your *Suture*, and with a Feather dropt a little of the melted Medicine between them, you are to lay over a Pledgit of suitable Bigness, armed with your *Liniment*, and your Plaister to secure the same, with Compress also fitted, when you must carefully roll up the Limb, beginning always from below upwards, equally and gently compressing as you go on; upon the Wound you are somewhat to be guided by the Complaint of your Patient, which if great, you must moderate, or slack your Hand; if little or none, you may proceed as you began,

so

so straitning as gently to press forth any Blood or Matter lodg'd on the Inside, or between the Lips thereof, which being past, you bare something lighter, to intercept or keep off the Fluxion, but by no Means so as may excite Pain, or thereby occasion any Disturbance.

When you have done this, you must consult the best Position of the Limb, if the Leg, the same is to be kept straight, lying on a Pillow upon a Chair, or Stool, or which may be found expedient, in the Bed; if the *Arm*, let it be supported by a Scarf or Napkin pin'd up to the Shoulder, lest otherwise the Flexion of the one, or Extention of the other, should endanger the breaking through of the Stitches, and tearing open the Wound.

But where the same happens to be Lengthways of the Arm, he may keep it, as he lies along in his Bed, straight out by the Side of his Body, which will be found preferable to the bending of the Joint.

When the Stitches tear their Way out, you must then lay in soft Dossils dip'd in your warm *Digestive* between the gaping Lips, and after *deterging*, to *incarn* and *cicatrise*, as we have formerly and shall hereafter direct in our next *Section of Ulcers*.

In Wounds which penetrate quite through, the *Limb*, without injuring the *Blood-vessels* or *Tendons*, you may lay a Pledgit arm'd with your *Digestive*, especially finding the wounded Person easy, upon each Orifice, and attempt the Union by *Compress* and suitable *Bandage*: But if through Pain or Fluxion arising, you are not like to accomplish the Work after this Manner, you are to introduce a proportionate Tent into the same, dip'd first in the warm *Digestive*, with a
Pledgit

Pledgit thereon, and having embrocated the Limb round about with the *Ol. Rosar. Lumbric.* or in Case of *Inflammation*, with the *Ol. vel Unguent. Sambucin.* roll up more gently, as your Patient can suffer it; when having let him Blood on the contrary Side, and kept him to a strict *Regimen* in his *Diet*, and other *Non-Nat.* if by thus proceeding for a few Days, the Wounds appear digested, and the Symptoms remit, you must then gradually shorten your Tents, and make your *Compression* and *Deligation* somewhat straiter, for the more convenient Discharge of the Matter lodged therein and preventing *Sinuosity*.

And here as to the Use of *Tents*, I think it necessary the young Surgeon should be inform'd, that where the Cavity or *Sinus* is capable of exact *Compress*, and may that Way be united; or if not, provided the same lies safe, not deep, but superficial, and can without any Danger be dilated, there is little Need of any: So where Necessity calls for them, as in some of those penetrating the *Breast* or *Belly*, as also in these perforating Wounds of the *Limbs*, they frequently are requir'd, he is by no Means to distend the same therewith, nor yet make them so long, even in the common Punctures not perforating, as to reach the Extent of the Cavity; for that were to choak in the Blood or Matter, stir up Pain and Fluxion, and raise an *Inflammation*, if not an *Abscess* or *Apostemation*. For Instance, should the Instrument have entred three or four Inches, his Tent is scarce to exceed one, especially, if any *nervous* or *tendinous* Parts lie in the Way, which being dip'd in the warm Liniment, as we have already directed, is gently to be introduced, and there retained; and as the Matter begins to decrease, the Pain likewise and other

Symptoms remitting, the same is still to be shor-ten'd, till at last it is made no longer than to keep open the outward Orifice; when after few Days this likewise is to be removed, and the Wound suffer'd to heal up.

But where the Instrument pass'd through the *Limb*, and it so happeneth that one Orifice is more depending than the other, being both dress'd up, as directed, for a few Days, the chief Regard is afterwards to be had to this lower Orifice, keeping the same still open, as lying more convenient for the Discharge, whilst you permit the uppermost to shut up; the Practice of *Injections* in these Cases, I must own, I have little better Opinion of, than in the *Breast* or *Belly*; even that of the *grand Vulnerary* of our new *Æsculapius*, I have known retard a Cure of this Kind, but never to do the Service of a few Drops of the *Balm of Turpentine* instill'd warm into the Wound.

HIST.
lx.

A *Gunner* belonging to the *Train*, in a Quarrel at *Woolwich* with some of his Companions, received a Wound quite through his Arm, with a Sword entring at the *Biceps*, and glancing by the Bone, came out a Top at the *Deltoides*, from whence an impetuous Flux of Blood issuing forth, the Surgeons there had thrust in Abundance of hard Tents and Dossils dipt in restraining and corrosive Powders, in order to restrain or choak up the same, with Compress in *Oxycrate*, sprinkled with *Bole*, and a strict Bandage over all: Whence by the Tightness thereof intercepting the Circulation, a large Tumour follow'd both above and below, with exceeding Pain, Fever, and Inquietude: But being told by his Surgeon, there was no Remedy but Patience, for if his Wound was opened in less than two or three Days,

Days, he would inevitably bleed to Death: The poor Man, unable to bear longer this insupportable Torment, after the second Day, came away, unknown to his Surgeon, to a Relation here in Town, and in my Neighbourhood; where being sent for, and slipping off his Cloaths, after he had acquainted me with his Misfortune, I turn'd up his Shirt Sleeve, where I perceiv'd the whole Arm above and below the Bandage [the Middle thereof lying as it were buried therein] vesicated and beginning to gangrene, from the Straightness of the *Ligature* about the Wound; under the Folds of which it was very difficult to enter the Point of my Scissars to give Liberty, the Fastening outwardly being hid by the Gleet wetting through the same; but taking Time, I snipt them all through from the Bottom to the Top one after another, choosing this Way rather than to unroll, by which in some Parts the Folds were stuck so close to each other, through the emplastic Matter they were dip'd in, that the Limb must necessarily have been more disturbed and jarred thereby, than by this other Proceeding; for having now clear'd the Way through all the Folds of the Binding, I rais'd them gradually on each Side, till I had remov'd the whole together at once; then taking a View of the Wound, I found both Orifices excessively distended by the Dossils cram'd into the same; some of the outer ones in each, being wet with Gleet flowing down from the Vesications, as well as that issuing out of the Wound it self, I perceiv'd would easily give Way, and accordingly I drew out the same with my Forceps, being provided with Dressings by me in Case of a new Eruption; then with a fine Hook out of my Tweezer Case, I rais'd several

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more, as I found they would come out without Force; till observing others about the Middle of the Wound sticking fast therein, I forbore, lest the Vessel should burst out afresh.

After this I snipt the several *Vesications*, and applied a *Digestive* over, when melting some *Liniment* in a Saucer with a little *Ol. Hyperici*, I dip'd in a soft Dossil, or rather of the Tent-fashion, fastned with a Piece of Thread, and gently introduced one into each Orifice, with a Pledgit of the *Liniment* on the Outside thereof: Then embrocating the whole Limb from the Fingers Ends to the Shoulder, *cum Ol. Lumbric. & Rosar.* where the same was clear of the *Vesications*, I afterwards cover'd the upper Part of the Arm, from the lower Wound to the Top of the Shoulder, with a *Cataplasm* of the *The-riaca Lond.* and gently rolling on the same, placed his Wrist upon a Pillow, supported as customary, by a Napkin pin'd up to his Shoulder, directing a proper *Regimen*, and keeping him in his Bed, having first order'd a Clyster to cool and empty his Bowels, with a gentle *Anodyne* for the Evening, after the same had done its Office.

The Day following I found him easier, with the Tumour on the Hand somewhat asswaged; tho' several fresh *Vesications* had arose above the Cubit, which I clip'd as before: The *Bandage* I observ'd wet through with a bloody *Serum*, which being remov'd, and the Dressings taken also away, I drew forth the Dossils by the Threads I had left out of the Wound the Day before, and perceived the same yet crude, nothing but a thin *Ichor* issuing forth thereat: When again inspecting the inside Orifice, the Lips of which for Want of Digestion, through the Distention

made

made by the first Application, were still as that above, gaping open and turgid; I passed in my Hook to try if any more of the Dossils would rise easily therewith, but missing my Hold, I made no farther Attempt, choosing rather to wait the Digestion of the Wound in Expectation of Nature's Help that Way, with more Ease and less Hazard to get rid of them, again dressing up as before.

The third Day, Matters seemed to take a better Turn, when in Company with Mr. *Blundel*, we perceived not only the *Vesications*, but each Orifice of the Wound to shew an Appearance of Matter, a small Quantity issuing out of the lower Orifice on the Inside *Biceps*; so that passing my Hook, I drew forth with Ease two more Dossils from below, and one from the Top, which by the Putrefaction they had contracted, stank like Carrion: I then poured in at the upper Wound some warm *Liniment* thin'd with the *Ol. Hyperic.* but finding none of it issuing out by the lower, I concluded there were more of these mischievous Plugs still left behind, which however I thought proper to overlook at this Time, for Fear of some worse Accident, and to introduce a soft Tent of about an Inch in Length, dip'd in the Digestive, at each Orifice; but not filling up the whole Capacity thereof, that the Matter might have Vent thereby, and the Patient by that Means be rendred also easier; then embrocating the Limb and applying a fresh Digestive on the vesicated Parts, I left off the *Theriaca*, and rolled gently on an easy Compress as the Day before.

On the fourth Day, or the seventh from the Hurt receiv'd, I found the Inflammation and Tumour also much lessened, the Entrance of the

Wound softer, and appearing with a kindlier Aspect; but being fearful of renewing the *Hæmorrhage*, I was shy in probing, and dressed up this and the Day following as I had done that before, when the Matter increasing, and pouring forth in large Quantity, mix'd with *Sanies*, I suspected an *Abscess* and large *Sinuosity*.

On the tenth, upon taking out my *Tents*, I passed a Wax-Candle from the upper Orifice, and at about two Inches met a Stop, and thence infer'd, we had more of the Surgeon's Pellets still behind: Upon withdrawing this, I passed down a Hook, belonging to my dissecting Knives, and guiding it easily to the Obstacle, when I was got upon it, turn'd it as gently, till finding it entangled, I leisurely, without any Manner of Complaint [which I was guided by] drew up, but coming within Sight, my Hold broke off; yet being thus far arrived, I had it within my Power, and entring in again, extracted a stinking Pellet or hard Dossil like the rest.

After this I passed down the Candle again, and met with farther Resistance about the mid Way, and the most dangerous Part of the Perforation on Account of the Artery, whence it seemed the great Effusion must have sprung at first. I then fathom'd the lower Orifice, and met the same Impediment much about the like Distance; but being fearful of my Hook, the Wound now thoroughly digested, and the Fluxion going off, having gaged this lower Orifice, I shaped a Piece of very soft Gentian to the Dimensions of the Wound, and left it in all Night; whereby I found, as I expected, the whole Passage so dilated, that extracting it next Morning, there issued forth three or four Spoonfuls of Matter; and putting up my searching Candle, I perceiv'd

ceiv'd the extraneous Body was advanced the one half nearer to the Mouth of this lower Wound; upon which entring again my Candle at the upper Orifice, and gently pressing forward, two more of the same Pellits came into Sight, which I took out with my small Hook; and having thus removed the Obstacle, or Hindrance to our Cure, the Bleeding-vessel being destroyed by the caustic Powders for some Distance, or incarning before the Separation of the *Sloughs*, some of which were not yet cast off; I dressed, as I had done formerly, with easy Tents dip'd in the warm Liniment, lessening that in the upper Orifice as of no Service, but keeping open that lower, whence large Quantity of *Matter* from the *Sinus's* among the Muscles daily proceeded: But by ordering Compresses well suited, and making a stricter Bandage, as my Patient could suffer, the same lessened as the Cavities united, which were mostly upwards, and the lower Orifice much favouring the Discharge; so that shortening my Tent here also, as the Matter ceased to flow, I at Length laid on only a Pledgit of the *Liniment*, and in little above a Month dismissed him cur'd.

I designedly waved the Use of a *Fomentation*, notwithstanding the *Gangrene*, for Fear the Heat thereof might occasion a breaking forth of Blood from the wounded Vessel; besides the Rise of this Symptom however dangerous, being entirely owing to: an outward Cause, the great Straitness of the *Bandage*, this being removed, we had less Occasion.

The stopping of this Flux of Blood was indisputably necessary for the Preservation of the Patient's Life; but the doing it this Way, by thrusting in of such great Numbers of Dossils,

or rather Globules of Lint, without making any Provision for taking them out again, or coming at them, was, I think, both dangerous and injudicious. [a more fatal Consequence of which Practice I shall observe to you presently, as I had it communicated by Mr. Bernard] and the Continuance of so strict a *Ligature* made by a narrow Filleting, to the Time appointed, had inevitably cost the Loss of his Limb, if it had been that Way possible [which yet was unlikely, all things consider'd] he could have compounded for his Life. A Couple of hard Tents, of Size proportionate in Length and Thickness, armed with the Restrictive, and introduced at each Orifice, where Necessity so requir'd, had answer'd the End of more than twenty thus cram'd on each other out of Sight or Reach.

Wounds of the Joints. We shall consider next the Wounds of the Joints, which, by Reason of their Make or Composition, are attended with many dangerous Symptoms and bad Events; viz. Pain, Fever, Convulsion, Inflammation, Abscess, Gangrene, large Flux of Blood, wounded Tendons, Synovias, or Gleetings of the nutritious Juice, Fistula's, Atrophy and Consumption; passing by the stiff and useless Limbs, Loss of the same sometimes, and frequently of Life also: To provide against all which, there is Need certainly of our greatest Judgment or Skill and Circumspection.

In the incised Wounds of these Parts, unless the Flux of Blood be so important, as to call for your immediate Help, you are to sew up the same, and taking good Hold with your Needle, but avoiding the nervous Parts with the Point thereof: This done, applying proper Restrictives or dry Dressings, as the Hemorrhage may require at your first Dressing, with Compress
 wrung

wrung out of *Oxycrate cum Alb. Ov.* and sprinkled with *Farina Volatilis*, you make then your Bandage, passing your double-headed Roller after such Manner both above and below, if on the Arm [the same kept upon a Semiflexure, if not at a right Angle] that the *Olecranon*, or Point of the Cubit, however defended by the Compress, may be left free upon Occasion: But if on the Knee, the Circumvolutions thereof may comprehend the same by Reason of the more strait or direct Position of the Leg.

And where the Flux of Blood was great, you may defer opening [as we observed in discoursing of Wounds in general with great *Hæmorrhage*] for two or three Days, but daily visiting your Patient, and inspecting the Outside, that if there be Occasion, your *Bandage* may be slacken'd; and in removing your Dressings, you are to be alike careful, moistening them first with Oil, or a little Wine warmed, where they stick fast, and leisurely separating those next to the Wound, that you may not endanger the tearing out of the Stitches, or exciting a fresh *Hæmorrhage*, by abruptly taking away those Pledgits or Dossils lying immediately on the Blood-Vessel, which are safer to be let alone till they digest off themselves; but where there is no Danger of Loss of Blood, you are at this second Dressing to be always provided of a Decoction of some of the cephalic Plants, to be used as a Fomentation with hot Flannels, such as you will find set down in our last Section, when discoursing of Wounds in general. Afterwards dissolving your *Liniment Arcei* with about a third Part of the *Bals. Tereb.* with a Feather, or your Probe armed and besmeared therewith, you are to go over the Edges of the Wounds,

F f 4

letting

letting some of it drop in between, when with a Pledgit arm'd with the said Liniment, you cover the same: Or where the Wound was deep, and [your Stitches beginning to start] lies open, you are to lay in soft Dossils, which have imbibed some of the Balsam, between those Interspaces; proceeding thus daily till the Union is compleated, or the Cavity incarn'd; taking Care to keep down any spongy Flesh arising, either with dry Lint, or some gentle *Catheretick*, among which none exceeds the *red Præcipitata*, which promotes a good Digestion, corrects the flabby Flesh, and lays a Foundation for a more firm and sound, to supply the Place: After *Incarnation* my *Cerate* of *Lap. Calam.* will induce a *Cicatrix*, and finish the Work.

Where the *Tendons* lie bare, you are to use your utmost Endeavour to secure them from the Air, and hastening their Covering with new Flesh, by some of the *sarcotic* Powders formerly mention'd, either sprinkled thereon, or mixt with your *Digestive*: But if by Reason of their having been long exposed before it was possible to incarn, or that by seeping in the Matter, they are likely to slough off, which you may infer from their beginning to grow soft and thick, and losing of their bright Complexion, to inhibit now all you can their farther Putrefaction, you may apply a soft Dossil, or a Pledgit of Lint gently press'd out of the warm *Tincture* of *Myrrh*, or mollify'd with a small Quantity of *Mel Ros.* taking Care that no unctuous Applications come near, which are prejudicial to the *Cartilages*, *Ligaments*, and *Tendons*, of which the Joints especially are compounded, as well as to the *Bones* themselves. This *Tincture* farther serving excellently well to dry up the *Gleets* that are
incident

incident to these Wounds, which is made still more exiccating by lessening of the Quantity of the *Mel*, and in strong Bodies or moist Habits, dressing with the *Tincture* alone.

If the *Tendon* is divided, or cut in sunder, the Motion of the Part into which the same was inserted, must necessarily be abolish'd, a Matter of that unhappy and vast Consequence, that in the larger Joints, where these Parts have been divided, their Extremities have been sometimes *stitcht* and brought together, by a *medium*, in the Nature of a *Callus*, also united, so that hereby the Motion has been retrieved.

Ambrose Parey tells us of such a Case at *Orleans* in *France*, where the *Tendons* in the *Ham* or *Flexors* of the *Leg* were cut; and being stitch'd up, the Patient recover'd, walking about as well as before.

Etmuller, of another that had those of the *Wrist* healed up after the like manner; and at *Paris* this Practice has of late Years been revived by a *Frenchman*, who frequently useth the same, making as light of sowing these Parts, as the *Flesh-Wounds*, or those of the *Skin* therewith.

But I think we need not go abroad for Examples of this Kind, our Countryman *Mr. Cowper*, having enterprised the same upon the *Chorda Magna*, or *Tendon* of the *Gastrocnemius*, above the *Heel*, of which he publish'd many Years ago a Sketch among the *Philosophical Transactions*: And truly it is something strange that an Operation of so great Import should not be more frequently perform'd among us, especially where these Accidents befall young People of good Habits of Body: Nor should it be thought strange, the *Bones* themselves being daily ob-

served

served to furnish Matter for cementing their broken Extremities, that *Nature* should be equally provident for the Coalition of these, when they are cut in sunder, without the Help of which, those Bones would be little useful.

The same Gentleman has discover'd Blood-Vessels in these seemingly *exangous* Parts, but if not apparent to the Eye, it is manifest by their *Nutrition* and *Augmentation*, there must be Vessels of some Kind to supply that Liquid, whether Blood or other Juice; and that whatever Parts are nourish'd, are capable of re-union, by the Apposition of such Particles from their broken or cut Extremes after Separation, could the same be kept close to each other, as they were before supply'd with for their proper Nourishment and Growth.

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I once made this Experiment upon a young Dog, dividing the large Sinew on the back Part of the Leg, upon which, the Foot having no Stay, hung loose, but stitching up the two Ends of the Sinew or *Tendon*, in about three Weeks Time he set it to the Ground, and quickly after went upon it, as on the rest, tho' somewhat like a *String-halt* Horse, which might have been in some Measure perhaps owing to a want of Care, there being after the first Dressing, which was the hot *Balsam* of *Turpentine*, with one half of its Oil, nothing but the Cur's Tongue to supply the *Surgery*, when the Cure being perfected, and the Stitches, I suppose, lick'd out, there remained a Sort of *Ganglion*, or callous Knot all round that Part of the *Tendon*.

In stitching of these Parts, the Joint is to be kept upon a Flexure, for the easier drawing out the Ends of the retracted *Tendon*, which being by your *Forceps* brought gently near each other,
you

you pass your Needle perhaps a Finger's Breadth from the End, when in like Manner perforating the other Extremity, you are to bring them gently so close, as they may touch one the other. Having made your fastening, you may besmear the Parts with the *Balsam*, and stich up the Wound also of the Skin above, as you shall see Occasion: But for your readier Conception of this Matter, I have here caused to be delineated the foresaid *Draught* from Mr. *Cowper's Plan*, with his History of the Case.

Feb. 1. 169². ' I was call'd to *Thomas Wheat-*
' *ly a Carpenter*, aged thirty Years, who had
' totally divided the great *Tendon* of the *Mus-*
' *culi Gasterocnemii* of the left Leg, about three
' Fingers Breadth above the *Os Calcis*. I found
' the upper Part of the *Tendon* withdrawn from
' the inferior,
' at least two
' Inches, so
' that I was
' obliged to
' divide the
' external *Te-*
' *guments* a. b.
' to come at
' the Ends of
' the divided
' *Tendon* A. B.
' this done,
' the first Needle C. [with strong Silk in it
' well wax'd] I pass'd thorough the Body
' of

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' of the *Tendon A.* about half an Inch above
 ' its divided Extremity. The second Needle and Silk *D.*, was thrust through this
 ' upper Part of the *Tendon*, a little under the
 ' former, lest the two Threads or Silks should
 ' meet each other at their Decussation in the
 ' middle of the *Tendon*. Afterwards both these
 ' Needles were passed through the lower Part
 ' of the divided *Tendon B.*, the Foot being held
 ' extended, the two Ends of the *Tendon* were
 ' applied to each other, by the Assistance of the
 ' *Ligatures C. D.* which were so tied, as to keep
 ' the divided Parts close together, whilst the
 ' Foot remain'd in this Posture. After the four
 ' Ends of these *Ligatures* were cut off, I found
 ' it was necessary to bring the Sides of the divided Skin nearer each other, with one single
 ' Stitch, a little above the *Suture* of the *Tendon*. This done, a Pledgit of Lint dipt in
 ' *Balsam* of *Turpentine*, was laid on the Wounds,
 ' and another larger of Flax arm'd with *Lini-*
 ' *mentum e gummi Elemi* over it. After the
 ' Application of common *Bandages*, *Bolsters*, &c.
 ' I found it was necessary to place a thick Piece
 ' of Pastboard, of a convenient arched Figure,
 ' on the fore Parts of the Foot and Leg, to
 ' keep the Part inflected, and prevent any Motion of it, which might break out the Stitches in the *Tendon*. He complained very much
 ' in passing the Needles through the upper Part
 ' of the divided *Tendon*, tho' its middle and internal Part at the Division, was scarce sensible
 ' of the Touch of my Finger; but he had no
 ' Pain in passing the Needles through the lower
 ' Part of the *Tendon*. After fourteen Ounces of
 ' Blood were taken from his Arm, I left him on
 ' his

his Bed. Six Hours after [which was about eight at Night] I found his *Pulse* somewhat quicker than before : He then took an Ounce of *Syr. de Meconio*. the next Morning I found him in no ill Condition, he told me he had got some Sleep that Night, but was often awaken'd with Twitchings in the Calf of the wounded Leg. The third Day after the Operation, I dress'd the Wound with the same Applications as before, only using a Fomentation made of a Decoction of *Wormwood*, *Sage*, *Rosemary*, *Bay-Leaves*, &c. On the fourth Day after the Operation, I found the Applications on the Wound very wet with a serous Humour, commonly called *Gleet*. On the sixth, the Matter became somewhat thicker, and the Skin being a little distended about the Wound, I was obliged to divide the last mention'd Stitch, to admit of the free Discharge of the *Pus*, which on the two succeeding Days, became much thicker than before, and the *Gleet* consequently lessen'd. About this Time, the two Ends of the *Tendon* were not a little dilated, and a white *Slough* appeared on it, towards the upper Part of the Wound, on which, instead of the *Balsam of Turpentine*, I apply'd *Tincture of Myrrh*. Not many Days after, this *Slough* came off, and the two Ends of the *Tendon* were overspread with a *fungous* Flesh, by which I was assur'd that its *Blood-Vessels* and nutritive *Tubes*, were not compréss'd by the two first *Ligatures*. Afterwards I made use of drier Applications than before, sometimes using Lint only, and at other Times, *Pulv. Terebinthinæ*. About ten Days after the Operation, I found one of the

two

‘ two *Ligatures* in the *Tendon* hanging loose,
 ‘ which I divided and drew out: Two or three
 ‘ Days after I found the other *Ligature* loose al-
 ‘ so, which in like Manner I removed, the Part
 ‘ all this while being kept inflected by the Past-
 ‘ board above-mention’d. I was often obliged
 ‘ to apply gentle *Escharotics*, to lessen the *Fun-*
 ‘ *gus* on the *Tendon*. In less than thirty Days af-
 ‘ ter the Operation, he went abroad very lame-
 ‘ ly, and not many Days after, he told me he
 ‘ had walk’d round *St. James’s-Park*. On the
 ‘ twenty sixth of *March* following, which was
 ‘ within eight Weeks after the Operation, he
 ‘ walk’d from his Habitation in *Witch-Street*
 ‘ without *Temple-Bar*, to *Greenwich*, and re-
 ‘ turned in a few Hours. He has since reco-
 ‘ ver’d all the Motions of his Foot, and shews
 ‘ very little Lameness in walking, and is not
 ‘ in the least incommoded in working at his
 ‘ Trade.

‘ It is a common Opinion [*continues he*] that
 ‘ stitching divided *Tendons* is hazardous, if not
 ‘ impracticable: And tho’ the Authority of
 ‘ some Writers would have prevailed with me,
 ‘ in some Measure, to have an Opinion of the
 ‘ Success of such an Attempt; yet the Con-
 ‘ tradiction of others, of no less Note, would
 ‘ have left me dubious, had I not sometime
 ‘ since seen large *Blood-Vessels* in the *Tendon* of
 ‘ a Horse’s Leg, which at that Time convinc’d
 ‘ me, that *Tendons* as well as *Bones*, and other
 ‘ Parts, would unite, tho’ they were quite di-
 ‘ vided, in Case the neighbouring Parts remain
 ‘ entire, if their two Extremes could be artifi-
 ‘ cially applied to each other, without compres-
 ‘ sing all, or the greatest Part of their *Blood-*
 ‘ *Vessels*.”

Where

Where the *Tendon* is cut but in part, and Convulsion, as is usual, ariseth, the safest Way for your Patient is to divide the same entirely, lest the *Fibrillæ* undivided, being put upon an Overstretch, by the hauling of the already retracting Parts, those Convulsions, with other threatning Symptoms, should continue, and endanger the Patient's Welfare.

The like is recommended by some great Practitioners, even in simple *Punctures* of this Part, where the Accidents are pressing, and oppose all Endeavours to obviate the same. These Kind happen oftentimes in bleeding with the Lancet, upon which ensues presently violent Pain, Contraction of the Limb, with large Fluxion of Humour and Inflammation, which if not ending in *Apostemation*, terminates very commonly in *Gangrene* and *Mortification*. For avoiding which, ^{Medicaments for a wounded Tendon.} being thus apprised of the Danger, you may immediately drop into the Wound two or three Drops of the *Bals. Tereb.* as hot as your Patient can admit, with a Pledgit over, dipt in the same, or mixt with equal Parts of a strong Tincture of the *flor. Hyperic.* made in the Spirit of Wine. After which embrocate the whole Arm *cum Ol. Rosar. & Lumbric.* gently rolling up from the Wrist to the Shoulder, and supporting it with a Scarf or Napkin, when bleeding your Patient [if he will allow you] on the contrary Arm, whereby to take off the Fluxion, let him have some very gentle *Anodyne* that may dispose him for Rest, and prescribe him the strictest *Regimen* in his *Diet*.

The next Day, if the Symptoms remit, you dress up as before; otherwise the Pain increasing, and a sharp *Ichor* distilling from the Wound, you may add some of the Oil of Turpentine to its

its Balsam, and embrocate again, laying on an *anodyne Cataplasim* to take off the Tention, as we directed at the Beginning for the *Phlegmon*: When the Accidents still increasing, you must dilate the outward Orifice, that your Medicaments may come with greater Efficacy to the Part hurt, which must not now be quite so strong, nor scalding hot as formerly, but in both proportion'd to the Constitution you have to deal with, together with the Sense or Complaint made at the Times of Application.

Some prefer a Tincture of *Euphorbium* made in S. V. as very powerful in drying up the Humidity gleeing from the punctur'd Tendon, but unless mix'd up with some more lenient Medicine, as the *Ol. Hyperic. Chamomel. Lumbric.* or happening to rustic and strong Bodies, it may prove too inflammatory and painful: Others use the *Bals. Peru* mix'd with the *Bals. Sulph. Terebinth.*

Mr. *Wiseman's* Remedy was the *Ol. Rosar. & Salniger*, drop'd scalding hot into the Wound, but I think the *Balsam* and *Oil of Turpentine* as agreeable as any other, if not more so, when rightly temper'd to the Sense of the Part.

Indeed through Mistake it may so happen, that all these fiery exiccating Medicines may be pernicious, and hasten those very Accidents they were intended to avert; as where the Injury has been slight, or glancing only on the *Aponeurosis*, when I have frequently seen a small Pledgit of the common Digestive, even a little *Basilicon* applied to the festering Orifice, has made Way for some unhappy Symptoms to go off without farther Disturbance, which had undoubtedly been aggravated by either of the foregoing Dressings.

Lastly,

Lastly, if neither Method nor Medicine will take Place, or that the Case grows still more threatening, we are advised to cut asunder the *Tendon*, in Hopes the Symptoms may now cease, and the Patient compound for his Life, not with the Loss of Limb, but Use of the prime Motion thereof: And if whilst you are thus treating of the Wound, Apostemation should ensue, you are to proceed as was directed for the *Phlegmon*: If *Gangrena* or *Sphacelus*, as was there also advised for the same Tumour terminating in a *Mortification*.

In a Word, where these Parts are cut asunder, and their *Suture* neglected or not practicable; if the Hurt falls upon the *Tendons* on the outside of the Hand, the same necessarily falls inwards; if only one single *Tendon*, the Finger it belongs to: If on the Inside, the Injury betides the *Flexors*, the same reclines, or is hauled backwards, as is the Finger whose *Flexor* is divided, and this through the Counter-Balance destroyed, the *Antagonist* or opposite Muscle over-acting: So that to prevent what Inconvenience you can, having secur'd your self from Reflection by a suitable *Prognostic* of the Issue of these Hurts, you must support the disabled Joint with a light *Ferrula* of Wood or Tin quilted; or a strong Past-board Splint. And if there is no Prospect of retrieving the Use, but that the Part by Reason of the divided Tendons, must inevitably be left stiff: If the Elbow or Finger, let the same be kept up by such Means, rather somewhat bent than extended; but if the Knee, straight, by which however they may be rendred a little more serviceable to the unfortunate Patient.

A young Woman, Sister to the Gunner wounded through the Arm, and by Means of whose

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Recovery she happen'd, I suppose, to be my Patient, in a foolish Scuffle, had a sharp Case Knife drawn suddenly across her Wrist, which opening a Branch of the *Vena Cubiti*, had likewise cut in sunder the *Flexor Tendons* belonging to the same, their Extremities immediately retracting each from other at a little Distance. Being call'd to her Assistance, and observing the bleeding Vessel running gently on the Side of the Wound, I directed a small Button of Lint dip'd in *Bole* to be held close down upon the Part which presently restrained the farther Effusion: Then wiping away the Blood, taking a View of the Wound, and the divided *Tendons* lying fairly in Sight, I thought I had an Opportunity [long wish'd for] of making the Experiment of their *Suture*; and being provided of all Things necessary, bending the Wrist towards a Curve, with my Forceps I gently drew out the Extremity of one of them, next the Palm, and passing a fine triangular pointed Needle with little Complaint, at a small Distance from the same, past through the appending Thread; then taking Hold of its opposite Extremity from beneath upwards, I did the like, when she violently cried out, and as I was about making the Attempt upon the other, my Patient grew unruly, and interrupted, saying, if she lost the Use of her Arm, much less her Wrist, she would not blame me, nor could she endure her Sinews thus to be stitch'd up, imagining till now, that she turned her Head, I had been only sewing up the Wound in the Skin: Wherefore finding her Resolution such, contrary to all that I alledg'd for her own Interest, I desisted from going on with the other *Suture*, and bringing the Ends of the stitch'd *Tendons* close together, I made my Knot, and cut off the

Liga-

Ligature; then sowing up the outward Wound about the Middle, and on one Side of the stitch'd Tendon, I brought those Lips together also, and fastning my Tye-knot cut off the Ends, directing the Person, who all this While compressed the bleeding Vessel, to remove his Thumb; so soon as I had, with a Feather dip'd in the warm Balsam, moistned the rest of the Wound, laying on a Pledgit of *Liniment* with a Compress sprinkled with *Farina* over the Button, to secure the Bleeding, and a Bandage round about; keeping the Wrist bent inwards, and giving a Charge the same Posture should be continued in the Napkin, pin'd up for Support of the same.

The next Day I understood she had been in great Pain all Night, and was now hot and restless: Upon which I took away some Blood, and contented my self for this Time with only embrocating the Hand above and below the *Bandage*, on Account of the *Tumour*, which yet was no more than might have been expected: But the Day after loosening all the Dressings, I found a *Slough* about the Vein, with the rest of the Wound having a good Aspect, and tending to digest: The *Sutures* as well in the Skin, as that of the *Tendon*, for what I could apprehend to the contrary, lying safe, the Lips only a little inflamed and exceeding tender: Whereupon I dressed up again as at first, suffering some of the warm Balsam to soak in upon the *Tendon*, going over the Wound with a Feather dip'd therein, and an Outside Pledgit of *Liniment*, covering the whole with an easy Bandage round the Wrist; her Reason, as well as her Ease thereby promoted, guiding her to keep the same bending inwards, which if she happen'd unawares, or in her Sleep, to raise, tho' ever so little, her

Pain by the Stretch of the *Suture* was exceeding great.

At the Week's End or thereabouts, the cutaneous Stitches were cut through the lower Perforation, tho' not before the Union was in great Measure compleated: The two Extremes wanting only a little Incarning, especially that where the Vein had been open'd, and whence we had at four Days End a second Effusion, but which was quickly restrain'd by the Stiptic, as at first: The other End was soon after fill'd up, unless where the Extremities of the unstitch'd Tendon lay partly in Sight, whilst the stitch'd one lying less exposed was more favoured by the Covering of the *Cutis* over it. Upon which Account I forbore drawing out the Threads, for Fear of disturbing those underneath, and contented my self with turning them over upon the Wrist. At ten Days End, I clipt off the Knots of the upper *Suture*, and drew forth the Threads, leaving those belonging to the *Tendon* to rot off, which they did, but not till several Days after, that they were removed. When the Cure was compleated, I observ'd a small *Callus*, or *Ganglioneide* Protuberance under the *Cicatrix*, proceeding doubtless from the nutritious Juice here shed for Cement to their divided Extremities, in like Manner as those which form the *Callus* for consolidating broken Bones.

To strengthen the Joint of the *Carpus*, I applied a *Cerate* all round, turning up the Ends upon the Inside, once in two or three Days, and directing her to bath all the tendinous Parts thereof, with the *Ol. Lumbricor.* and *Axung. humana*, in order to lubricate: The free Play of these Parts being much incommoded by the Scar, or Adhesion of the *Cutis* to the subjacent ones.

Upon

Upon the Alterations of the Air, she would frequently complain of Pain under the *Cicatrix*; the Flexion however tolerable, remained less compleat, than it had been doubtless, if she would have admitted a *Suture* upon the other Tendon; upon stitching of which Part, and for some Days after, I observed some light *Spasms* affecting the whole Limb, which, she used to complain, often waked her out of her Sleep; but these gradually went off in about ten Days Time, so that she scarce felt a Twitch in the whole Day or Night.

When the Wound was thoroughly digested, I laid on a small Pledgit towards the Conclusion expressed from the *Tincture* of *Myrrh*, a little temper'd with *Mel. Ros.* so as that some Parts might work through to the *Tendon*: In other Places, where a *Fungus* was apt to rise, I kept under the same with *Præcipit. rub.* either lightly strewing it on, or mixing with the *Liniment*, and at last brought on a *Cicatrix*, by dry Lint and my *Cerate* spread thin interchangeably, as I saw Occasion.

The contus'd Wounds of the Joints, and in particular those made by *Gun-shot*, are still more desperate, as not only dividing the *Tendons* and *Ligaments*, but shivering the *Bones* themselves, and lodging also extraneous Bodies therein; creating great Difficulty to come at, attended also with the most exquisite Pain, and larger Fluxion; at the best, usually terminating in *fistulous Ulcers*, and very commonly bringing on *Convulsion*, *Gangrene*, and *Death*, which concludes the Scene. But of these before, when discoursing of *Wounds in general*.

The next we shall observe, are the Wounds ^{Of Wounds} of the *Nerves*; in speaking to which, I must ^{of the} take ^{Nerves.}

take Notice, that in most Writers of *Chirurgery*, we find the Word *Nerve* promiscuously used with that of *Tendon*, as if implying the same Thing; altho' I think scarce any of them could be ignorant, that as the former is a soft and pervious *Tube* deriv'd originally from the Brain, or *Spinal Marrow*, and extended by its fibrous Shoots into all Parts of the Body, ordain'd to convey the *Vires Sensitivæ ac Motivæ*, whether by Means of *simple Contact*, an *Elastic Aura* call'd *Animal Spirits*, or a *Fluidum nervosum* drilling through their Pores, I am not to decide; so the other is a *Congeries* of the Fibres of a Muscle, more open and scatter'd in the Middle thereof, but congregate and compact at the Ends into a *Cylindrical Body*, supplying the Place of a *Vættis*, or Leaver, together with its Muscle, to raise the Bone, and thereby to move the whole Body or its Parts, at the Direction of the Will before Hand influenc'd by the *Nerves* as aforesaid.

The Hurts of these are equally to be dreaded with those of the former, being Parts of the finest Sense, and which indeed give Sense to all the other being Parts, attended with the worst Consequences, such as Loss of the same, with Motion also; and as above we have described those belonging to the *Tendon*, so are we now to make a short Recital of them that appertain to the *Nerve*.

And here give me Leave to remark, that in this Account I mean not those *nervous* or *nervomembranous* Productions of the *Meninges Cerebri*, which bestow not only Cloathing upon the Bones and Muscles, but Enclosure and Partitions for the Breast and Belly, nor other the like Parts, which by some are termed the *Organa Sensationis primi generis*; for thus there can be no Wound whatever, even the most simple Solution

tion of Continuity, where these are not affected, nor painful Sensation, but what ariseth from their Division, and is immediately communicated to their Source or Original.

The Parts here particularly intended are the *nervous Tubes* themselves, at their Rise from the *Brain* and *Marrow* of the *Spine*, together with their *Plexus* afterwards divaricating to the several Parts, till through their Fineness, they, as it were, evanesce, or escape our Sight, and these we call the *Organa secundi generis Sensationis*; which may be injured more especially these three Ways, *viz.* by *Division*, *Compression* and *Obstruction*.

From the *first*, ensues irremediable Loss of Sense beyond the Part hurt; from the *second*, a Kind of *Stupor* like that which happens sometimes to one sitting cross-leg'd, or pressing hard against the Side of a Chair or Stool with the Thigh; leaning upon the Arm against a Table, by which according to the common Phrase, the Limb is said to be *asleep* or numb'd: From the *third* proceeds also a partial or total Abolition of Sensation, according to the Degree of the Obstruction, and the Nature of the impacted Humour: Thus a *pituitous* or phlegmatic Matter falling down upon the Origin of the Nerves, produceth an *Apoplexy*, and that oftentimes terminating by sinking lower, either in a *half* or a *whole* Palsy; the former call'd *Hemiplegia*, the latter *Paraplegia*, according as one or both Sides of the Spine happen to be affected; but these we leave to the *Physician*.

The *wounded Nerve* requires the like Applications with those of the *Tendon*, very frequently suffering together therewith, particularly in the Joints, producing Symptoms of the like Nature,

as *Horror, Rigor, Spasm* or *Convulsion*, either in the Part hurt, or by Consent through diverse others, at which Times the *Bals. Sulph. Terebinth.* is to be drop'd into the Wound, as preferable to most other Remedies; the same likewise is to be taken inwardly ten or twelve Drops in any proper *Vehicle*, also the *Bals. Peru* and *Capivi* used after the same Manner.

Whilst these are applied to the Part, the whole Joint, or the Spine, if the same be near adjoining, must be well embrocated with some comfortable Oils or Ointments; or some spirituous Epitheme, such are the *Ol. Lumbric. Aneth. Chamomel. Laur. de Castoreo.* The *Unguent. Nervin. Martiat. de Althæa*, to which must be added always some more penetrating Medicament, as the Chymical Oils of *Amber, Bricks, Spike, Turpentine*, in a quarter Proportion: The *Spir. Lavendul. Castor. Anthos, vel Aqua Hungarica*, make excellent *Epithems* for the benumb'd or *paralytic* Members. The Chymists, for this Purpose, highly extol, and that not without Reason, their *Galbanetum* either of *Paracelsus, Hartman, or Sennerthus*: But yet if the Malady, as in some *Sulphureo-Saline* Habits, or hot, thin and dry Temperaments falls out, the *Ol. Viol. Rosar. Lil. Papav. alb.* must be substituted and the former forbidden.

By Compression, these Parts may suffer many Ways, as in the Cases of *Tumours, Fractures, Luxations*, when the Cure wholly depends on the Removal of those Accidents, which are the antecedent Causes: Likewise by *Contusions*; thus a Blow upon the Neck sometimes takes away the Use of an Arm, upon the Loins, that of the Leg, on the Side of the Spine which happen'd to receive the Injury.

At these Times you are to apply some vinous or spirituous *Fomentation* to the Part originally affected, *embrocating* also as before, *cupping* either with or without *Scarrification*, as shall seem most convenient, according to the Appearance of *Repletion*, or *Inanition*, *Vesicatories*, *Sinapisms*, warm *Flannels*, or *Furs*, strong *Frictions*, *Fontanels*, *sulphureous Baths*, with whatever may revive and stir up the native Heat, attract Nourishment to the Part, and prevent an *Atrophy* or pining of the same; not neglecting in the mean Time, to consult the Physician, that proper *cephalic* or *neurotic* Remedies, may be prescribed internally, such as brisk purging, and sharp *Clysters* between Whiles, especially for the *Pblegmatic*; also the *Gums*, *Balsams*, *volatile Salts* and *Spirits*; and in short, every Thing that may contribute to open the *Tubes* of the obstructed Nerve, and make Way for its Fluid to recirculate: But of this, as not so directly appertaining to the *Chirurgeon's* Province, neither yet to a Discourse of *Wounds*, we shall say no more at present, but after giving you one Instance, proceed to those of the Veins and Arteries.

A Hackney Coach-man in passing by a Cart unloading, disturb'd the Car-man's Horses by whipping them to get along; upon which turning out of the Shop, where he had been letting down his Goods, he takes up the Piece of Wood under-propping the Cart, and in great Fury flung the same; which taking him on the Side of his Neck, he fell off his Box, in his Fall receiving also a Wound on the Top of his Head down to his Skull, and was taken up stun'd and speechless.

He was in this Condition presently carried Home, and put into his warm Bed, where he was

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let

let Blood, and proper volatile Medicines administered, to promote an Expansion of the Spirits intercepted in their Passage through their wonted Tracts. In short Time after, coming to himself, he made little Complaint of his Wound, but of his Arm on the same Side where the Blow had been given on the Neck, which coming to examine, we found a *Paralysis*, being thereby deprived both of *Motion*, and in a Manner *Sensation* also; and this most probably by compressing the *Nerve* at its Exit by the *Vertebrae*, which being discover'd, he was well rub'd with warm Applications about the same; such as the *Ol. Lumbric. Castorei Petrolei, Succin.* the whole Limb chafed with hot Flannels, which little availing, a large *Vesicatory* was applied *inter Scapulas*; likewise spirituous Epithems and Fomentations about the Nape of the Neck and downwards: Also *Cupping-glasses* round about, with sharp Clysters for Revulsion, and whatever else might conduce to open the obstructed *Tubuli* of the *Nerves*, together with the farther Help of Internals prescribed by a Physician sent to him by the Car-man's Master, who was brought into Trouble upon his Man's Account, such as the following.

℞. Conf. Anthos Flor. salu. & Paralyf. a.
 ʒβ. Pulv. Rad. Ar. C. ʒij. de Gutteta, ʒiβ. Spec.
 Diamb. ʒj. Castor & Sal vol. Succin. ā. ʒβ.
 Syr. Pæon. c. q. s. ut f. Elect. de quo capiat ad
 Quant. N. M. maj. Mane ac Vesperi, superbib.
 Cochl. iv. vel v. Infus. seq^{ta}.

℞. Sem. Sinapios Rad. Raphan. rustic. ā. ʒij.
 Serpent. Virg. ʒj. Flor. Anthos Sem. Cardamomi
 min. ā. p. 1. infunde simul calide in aq. F. q. s.
 pro Colaturæ ʒxij. cui adde aq. Pæon. C. ʒij. Syr.
 e Stackade ʒj. M.

℞. Spir.

℞. Spir. Sal. Armon. Succinat. Spir. Lavend. C. Tinct. Castor ʒ. zij. M. capiat gut. xxx. bisterve in die cum haustulo cujuslibet potulenti.

Between Whiles, he was purged with two or three Spoonfuls of the *Tinct. sacra* over Night, and a Drachm of the *Pil. fætid.* in the Morning, sometimes also with *Extr. Rud.* and *Calomel.*

From all which, he seemed at Length to get Ground, and recover his Feeling, with some little Use of his Fingers; when his Head was well, his Adversary and he making up their Difference, or rather the Masters in their Behalfs, a Sum of Money was advanced, and the poor Fellow by the same Physician's Advice, made a Journey to *Bath*: Where he was well *pumpt* upon the Neck, bathed sometimes, and drank the Waters for six Weeks; returning still stronger in his Hand or Wrist, however still weak in his Arm; so that to supply in some Measure his Bath-waters, he was advis'd to take twelve or fifteen Drops of the *Terebinthinated Balsam of Sulphur* twice a Day, in a Spoonful of the Syrup of *Stechas*: Likewise a *Gujacum Decoction* with the *Summitates Rorismar.* in the Nature of a Diet, drinking thereof three half Pints in a Day, Night and Morning, upon his balsamic Drops, and in the Afternoon by itself, in order to invigorate his Blood, as well as strengthen the whole *nervous System.*

Thus after four Months Time, finding his Hand strong enough to hold the *Reins*, he mounted his *Box*, and follow'd his old Employment: Tho' he never after regain'd a good Use of the Arm, his Fingers continuing still numb'd, and his whole Hand, as they say, *clumsey.*

In discoursing of *Wounds in general* at the beginning of the last Section, we made the restraining of the Flux of Blood, one of the first Intentions in the Cure, at that Time observing the several *styptic* or restraining Medicines, with the other Ways of compassing the same : As also in this present, we have likewise touch'd thereon, so that we shall be the shorter in what remains now to be discoursed upon this Subject.

Of Wounds of the Veins and Arteries, with their Diagnostic, Prognostic and Cure. By the *Wounds* then of the *Blood-Vessels*, are to be understood such, wherein, albeit other Parts may be hurt at the same Time, yet the greatest Difficulty and Danger also, ariseth from the *Hæmorrhage* or Flux of Blood, issuing forth some Vein or Artery : The former creating much less Trouble of the two, tho' often fatal as the other, when scituate out of the Reach of Medicine.

To distinguish one from the other, is very easy, where the bleeding Vessel lies in Sight, or the Stream either, thence arising : And that not only by the *Colour*, but *Manner* of Eruption : The former, *viz.* the *Venal*, being darker, and running forth with an equal continued Stream : The latter or *Arterial*, more bright or florid, and breaking forth, as we say, *per Saltus*, or repeated Jerks, according to the *Rythm*, or proper Motion of the Coats of the Vessel, termed *Systole* and *Diastole*.

In the Cure of these Wounds, where the Vessel can be come at, if it happen to be a *Vein*, some of the milder Restringtons formerly mention'd, may very likely suffice : But if an *Artery*, you will have occasion for the strongest, such as the crude *Alum*, *Vitriol*, or its *Colcothar* : Likewise the *Terra umbra* and *Calx viva*, so highly commended by my Predecessor Dr. *Read* : The *Aqua Styptica Regalis*, or in Want thereof, a Solution

lution of the two former Salts in Spring-Water, mixt with the Oil of Vitriol, will supply the Place: The Dossils or Buttons of Lint being made up tight, and dipt therein, or first wetted therewith, and sprinkled with, or rolled after in the Powders aforesaid, are to be placed and bound close down upon the wounded Vessel, or kept with the Finger press'd thereon, till the whole Wound is fill'd up with other Dossils of dry Lint, or the same laid down into *Galen's Powder*, formerly describ'd: Over which, carefully removing your Finger, you clap on a Compress of Tow, dipt in *Oxycrate cum Alb. Ov.* and sprinkled thick with *Farina*; and lastly, you are to roll all safe with a suitable Bandage, without which, your inward Applications not being kept close, will avail little, and you must expect to be alarm'd, perhaps before you are got out of your Patient's Chamber: For avoiding which, I usually order'd a Servant at such Times, to keep their Hand close down upon that Part of the Bandage over the Wound, for three or four Hours, shifting as they grew tired; and if the Weather was hot, dipping the same between Whiles in *Oxycrate* or cold Water. And here I must advise, where the bleeding Vessel is accompanied with the *Nerves* or *Tendons*, as commonly in the *Joints*, that you be as sparing as you can of the stronger *Escharotics*, especially the *sublimate Corrosive*, since you can scarce apply them without hazard to those very sensible Parts; and which being thereby affected, most violent Pains are occasion'd, and sometimes deadly Convulsions: So that doubtless it were more eligible for the poor Sufferer, that his Blood and Spirits should be exhausted in the gentler Way of Indolence and *Deliquium*, or the *εὐθανασία* coveted by all, than

in Expectation of Relief, to be thus tortur'd to Death. Wherefore the *Ligature*, if practicable, is to be prefer'd, if not, the *actual Cautey* applied with Care, with which the Surgeon should be always furnish'd, of several Sorts, larger and smaller, with *Button*, *flat*, and *pointed* Extremities, for the better adapting them to the Mouths of the Vessels, without hurting any adjoining *nervous* or *tendinous* Part. As to the Use of which, there may be more Judgment requir'd than the younger Artift is aware of: For if perfectly red, or Fire-hot, as we call it commonly, hastily applied and instantly remov'd; 'tis odds but at the same Time the *Eschar* or Crust is pull'd off with the Iron, and the Patient undergoes the Pain to no Purpose, the Vessel now again bleeding as forcibly as ever. When the same then is of a moderately glowing Heat, being struck against the Grate, or Side of the Chafing-dish, where the burning Charcoal is kindled for that Purpose, and rub'd against the Floor; let it be strait clap'd up to the Mouth of the Artery, carrying it however Sideways to the same, that the Blood flowing out against or upon it, may not damp the Heat: At the same Time let the End of the *Cautey* be turned two or three Times round about, against the bleeding Part, with Expedition; still observing upon each Touch, whether the Work is done compleat, whence you may renew or withdraw wholly your Instrument, conveying the same, as it was brought you, handsomely out of your Patient's Sight, and dress up with *Lenients* as is requir'd in other *Ambustions*.

But where the *Artery*, altho' its *impetus* be taken off, continues bleeding after this, you may give the *Eschar* a Touch more, or the Heat decaying and proving insufficient, having a second

Iron

Iron always ready in the Fire in another Room, or behind your Patient, in the Chimney of the same; therewith finish what remains, observing the same Directions as before in the Application, in Regard to which you may take with you these farther Cautions, as of Use to be observed.

1. That your Patient, especially if a Woman or Child, and more particularly a Woman with Child, be never suffer'd to see your Irons, or if possible, to know any thing of them: For which End it is necessary that the Face be cover'd at such Times, and the Part held steady by a Servant, or some proper Assistant, among which some of your own Fraternity are the fittest.

2. In dressing afterwards of these Wounds, tho' you may look on them the second Day, where the Flux was restrain'd by *Ligature*, and the *Digestive* presently applied to the rest of the Wound; yet where the same is stopt by *Cautery*, whether *potential* or *actual*, 'tis better to defer your Inspection somewhat later, as to the third or fourth, that the *Eschar* may be longer before it comes off: And even then after cautiously removing your upper Dressings, let those immediately next to the bleeding Vessel, be suffer'd to lie still, till digesting away of themselves, lest otherwise you force off the *Slough* or *Eschar* with the same, and renew the *Hæmorrhage*. However, you are daily to have your Eye on the outside, to see that your *Bandage* is in good order, neither too straight, nor yet too slack; as likewise to embrocate round about upon occasion, with the *Ol. Ros. Lumbric. Sambuc.* or such like, to lenify or assuage the Tumour ensuing upon these Accidents, and remove the Fluxion giving Rise to the same.

3. That altho' the Wound may otherwise require a good *Fomentation* to cherish the native Heat,

Heat, forward Digestion, and discuss the Humours falling down to the Parts; yet must you observe this as a standing *Maxim*, that till you are perfectly secure of your Bleeding, you must apply no Stuphs wrung out of hot Liquors in the Way of a *Fotus*; for by the Heat of these, the grumous Parts being attenuated, stopping up the Mouths of the Vessels at some Times, and the Blood thereby disposed to be more fluxile, may be apter to force its new Boundaries, and to break out afresh; and this by the Way of *Caution*.

After the Bleeding is restrain'd, and the Wound digested, you then proceed as for other Wounds we have already given Instructions.

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lxv. But where the wounded Artery lies deep, as in the *Carotid*, *Humeral* and *Crural*, the Task is yet more difficult, and the Patient frequently bleeds to Death; or if choak'd outwardly, the Blood making Way into the Interstices of the Membranes and Muscles, grows quickly putrid, and the Parts corrupt: Which was the Case of C. S. a Gentleman just come to the Possession of a large Estate, wounded in a Duel by a Rapier, thrust into his Neck, and opening the *Carotid* Artery: For the restraining which a noted *Frenchman* was call'd in, who, as I had the Case from Mr. *Bernard* [afterwards consulted] had forc'd in a vast Number of little Pellets of Lint, but had taken no more Care than the *Woolwich*-Surgeon formerly mention'd in the Gunner's History, how any of them should be got out again: Hence the Wound continuing many Days undigested, and the Putrefaction spreading, the whole Side of the Neck was found sphacelated, upon Dissection after his Death, from the Ear down below the *Clavicle*.

Let the Artift, hereby admonish'd, be always careful that the inward Doffils more especially, be fafely tied, the Thread hanging out, for the fe- cure Extraction when thought requifite: But in- deed I think this Practice of forcing in fo great a Number of fmall Doffils not to be imitated, much lefs that of *corrofive Injections* into thefe deep Wounds; for befides that they create excefsive Pain by vellicating and gnawing as it were the *nervous Parts*, ftirring up *Convulfions*, and other dreadful Accidents, they cannot be circumfcrib'd in their Operation, as fuch Medicines ought to be, upon the Parts only requiring the fame, but diffufing all round, excite intolerable Anguifh. Wherefore at fuch Times I think it more advifable, if the *Cautery* directly, or paffed through a *Cannula*, has no Place, to fhut up the outward Orifice by fome good *reftriktive* and *em- plaftic* Medicine, and with proper Deligation to fe- cure the fame: By which Means the wounded Veffel together with the Wound in the Flefh, has been fometimes found agglutinated, whilft *Nature* has met with no Difurbance either from the large Tents or Doffils forced to difquiet her, nor the more painful Corrofives thrown thereinto. But where there is no fuch Advan- tage to be expected from Rolling, and that the Way by Doffils, or hard Tents fecur'd for with- drawing, fhall be found neceffary; fo foon as the Bleeding is thereby reftrein'd, you are by no Means to keep the Orifice diftended, or upon the Stretch by Means of the fame, to the raifing of more Pain and Fluxion, as well as hazard of *Gangrene* and *Mortification*; but having with an armed Probe let in fome of the warm *Balfam* of *Turpentine*, with a little *Ol. Hyperic.* you may now introduce a fofter one thereinto, which need

not to fill up more than two Thirds of the Cavity, with a Pledgit of your Digestive over it; by which Means, after the *Sloughs* are digested out, occasion'd by your restrictive or *escharotic* Applications, you are to forward the *incarning* all you can.

Farther in the Way of *Agglutination*, where you depend upon *Emplasticks* applied outwardly, and have not the Advantage of a strict Compression, or securing your Dressings by *Bandage*; some propose that Part to be supplied by the Surgeon's Hand or Fingers, as in the Case of the *Prince of Orange* formerly recited; and here I can assure you that in a desperate *Hæmorrhage* of the like Kind, I have had this Post my self for six Hours successively, retaining an *Emplastic*, shifting my Fingers as they were cramp'd, and taking my Repast at the Patient's Bed-side, not suffering a Drop of Blood to be lost for that Time, altho' a Cough attending gave us fearful Apprehensions, as well as an unruly Patient we had to encrease them. Upon removing my Finger, the Dressings being dry, and sticking close, I gave a Charge to two others, hired to sit up all Night, and take their Turns, how to perform the same Task: But whether through Remissness or Inadvertency, upon a violent Fit of Coughing, beyond the Reach of a full Dose of an Opiate I had given him, before I took my Leave, to alleviate the same; notwithstanding their Endeavours, who in the Surprise I suppose mistook the Place of Compression, the Artery burst out afresh, and the Patient living out of Town, was exhausted, before I or any other Help could come to assist him.

When the like Accidents happen in Wounds penetrating the *Breast* or *Belly*, if they light especially

specially on the Trunks of the *Aorta* or *Venacava*, the wounded commonly die upon the Spot: Or if the smaller Branches, the Case is still dangerous, tho' even here it behoves us to lend what Assistance we can, keeping open the Wound, if it be so scituate as to be of any Service in draining off the extravasate Blood, or serous Humour flowing into the Cavities; whilst the Physician prescribes some proper *restringent*, *agglutinative*, *vulnerary* Remedies, in the Form either of *Electuary*, *Pill*, *Powder*, *Potion* or *Aposome*, as are most agreeable to the Patient's Palate: Endeavouring at the same Time to temperate the Fervor or Heat of the Blood, by some refrigerating *Emulsions*, *ex Sem. 4 fr. Maj. Sem. Lactuce Papav. & Hyosciam. alb. in Aq. Hord.* Cooling *Julaps* also *ex Aq. Lactuce Papav. Plantag. Sperm. Ranar. edulcorate with Syr de Meconio de Nymph. Portulac. Limon. or the like:* In which Liquors may be dissolved *zj.* of the *Chrystal. Min. or Sal. Prunel.* to *℥j.* which potently encounters all inflammatory Disorders of the Blood, and bridles the raging Heat thereof: To this may be likewise added a few Grains of the *Sacch. Saturni*, much esteem'd by *Dr. Pitcairn* upon these Occasions. But of the internal Prescription at these Times, and to answer such Intention, we have already discours'd, when taking Notice particularly of the *Wounds* of the *Breast*.

A Servant Maid at the four *Swans* within *Bishopsgate*, by Misfortune thrust the sharp Point of a Case-Knife into her Wrist, which open'd the *carpal Artery*, just above the Part where we usually feel the *Pulse*, to take the State of a Fever or other Indisposition; whence an enormous *Hæmorrhage* ensued, in spite of all Endeavours

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of the Family to curb or check the same: The Artery forcibly spurting all the Way she came along the Street to my House without the Gate; where happening to be at Home, I presently clap'd down a Button of Lint dipt in the crude Vitriol, over which several thick Pledgits, some strow'd with *Galen's Powder*, others larger first press'd out of *Oxycrate*, and sprinkled thick with *Farina*, over which lastly a Compress of folded Cloth, dipt in the said *Oxycrate cum Alb. Ovor.* and a Bandage round the Wrist, suitable to the Occasion.

I then gave Directions, after pinning up the Arm in a large Handkerchief, that she should be kept cool, still, and quiet, in order to which, that Night she took a Draught *ex Aqua Papav. ʒj. Syr. de Meconio ʒvj. Sal. Prunel. ʒß.* her Drink was *Milk and Water, Barly-water*, in order to restrain the Heat, and inordinate Motion of the Blood, which was like to be raised by an Ebullition thereof, from the Pain and *Symptomatic Fever*, with each Draught of which she took also a Scruple of *Sal. Prunel.* and a little Sugar: Her Diet was not to exceed *Water-grewel, Barly-grewel, or Panada.* I would have bled her in the contrary Arm, but in Consideration of the great Loss thereof she had just before sustained by her Wound.

The Day following she found her self well enough to come to me again; when I contented my self with clipping a little Way through the Folds of the Roller, to give Liberty on Account of the Tumefaction, rather arising from the Pain of the Escharotick, which held severe for some Hours after the dressing, than to the Overstreightness otherwise of the same: After which I embrocated both above and below on the Back of the

the Hand, which was also swell'd, *cum Oteo Rosar.* and pin'd the Arm up as before. The like I did the second Day, being shy of taking off the Dressings, and finding no farther Danger from the Fluxion, which was lessen'd by her Ease, and the Liberty given the Day before, for Fear of disturbing the *Eschar* or Crust upon the Artery, by so early a Removal of my Dressings on the same; which however I now soaked well with Oil, to prepare them for coming off with less Disturbance, when I thought fit to renew them, which was not till the fourth, when with all imaginable Caution I adventur'd; and lifting up the under Pledgit, I perceiv'd, do what I could to prevent it, the vitriolate Button would give way therewith, but left a thick Crust underneath, which I could see rise up and subside, according to the *Systol* and *Diastol* of the Coats of the vibrating Artery; which gave me Reason to fear an Alarm, so soon as ever the *Eschar* was upon Separation, the Vessel especially lying so full in View, and unlikely to be incarn'd so suddenly as we wish'd and wanted. However, to secure it all I could, I laid down a Pledgit of dry Lint upon that Part of the Wound, and a Digestive of Liniment over the rest, embrocating the whole Hand and Arm as before, but with softer Compress and Bandage, making up again, and keeping her every Night to her *paregoric* and thin Diet as at first. Every Morning she took early a Morsel of Lenitive Electuary, which kept her Body cool, and in good Temper as to Stools, which I did the rather on Account of the *Anodyne* that would otherwise have render'd her over-costive.

Thus dressing once only in two Days, the Wound beginning to digest, we went on well

for Ten; the Crust yet sticking, but visibly still rising and falling with the *Pulse*, the Tenure of which was here perceptible to the Eye, as in others it is apprehended by the Finger's Ends.

Being now in continual Expectation [on the poor Maid's Account] I left a more particular Charge with my Servant, that he might readily find me when from Home, if wanted: And on the eleventh Day, as I was at Dinner, she was brought into my *Surgery*, supported by two of the Servants, bleeding as at first. I was then provided of a small Vial of a *Styptic Water* from Mr. Ed. Green in *Newgate-street*; and pressing gently a Button dipt therein, held the same close down upon the Place, and instantly restrain'd the Flux, with less Compress than I had been forc'd to use before, and less Pain also than was occasion'd by the Vitriol: Over which I placed the wonted Compress dipt in *Oxycrate*, cover'd with *Farina*, and rolled the Arm up again, pursuing the former Directions, and defer'd opening till the third Day, only embrocating daily above the Bandage, as also on the Back of the Hand which began to tumefy again.

When I came to take off the Dressing, I found the Button sticking close, which I left on, and was not without Hopes, that having destroy'd more of the Artery, and the same lying less in Sight than before, with a scarce perceptible Motion, we might now probably be more secure: Yet upon *digesting* afresh the other Parts of the Wound, which were enlarged by the Salts of the Vitriol at first employ'd, encreased in Dimensions, and the Sloughs casting off together with the Button, which had been dipt in the *Styptic Water*, I could now again perceive the alternate Risings and Fallings of this

new *Eschar*, with those of the Artery, tho' not altogether so strong as formerly, and then grew suspicious we might still have farther Trouble; which being willing to provide against, I desir'd the Assistance of Mr. *Henry Boon*, who at that Time liv'd within few Doors of her Master's House, either in the tying up the Artery, or what other Method we should take at the Time of the next Eruption: Who gave me a Meeting at the same Place, where it was agreed to free me from farther Trouble, by getting her into the *Hospital*. However, before this could be enterprised [at least was so] the Blood broke out afresh, and the Wench was so exhausted thereby, before my self, or any one else could be got to her, that she fell into a *Deliquium*, tho' a Person of as undaunted Courage, and Presence of Mind, as I ever met with. Notwithstanding which, coming again to her self, the Blood continued jumping out from the Rupture, in spite of all their fruitless Trials, running down the Pavement, besides the Chamber-pots and Basons fill'd therewith, as also the Towels, Napkins, and other Linen they had, but without Discretion, applied round her Wrist, dipt in *Oxycrate* before they were put on.

When I came into the Room I clear'd away these bloody Cloths, and thrust a hard Button of dry Lint only to the Mouth of the Artery, pressing it so close thereto, with my Thumb upon it, that the Blood ceased any farther running down; when instructing one of the stoutest Persons as I thought in the Room, to take my Post for a few Minutes, in the mean Time I put a couple of Irons brought with me, into the Fire, if I should see occasion for their Use: And being also provided with my Needles, and other

the necessary *Apparatus* for making the *Ligature*, I sent for Mr. *Boon*, but Word was brought that neither he nor two others they went for, could be met with : So that laying aside this Enterprize of tying up the Vessel for want of proper Assistance, I resolv'd to confide in the hot Iron; one of which taking out of the Fire, whilst the Arm was extended by a Servant grasping at the Wrist, and another below the Cubit, as she sat in a Chair against the Light; I order'd the Person who held down the Compress, to lift up his Thumb, when the Artery spurting out, coming Sideways upon the same, I thrust it close up to the Aperture, and singeing it, turned it twice about, instantly thrusting up its Point : Then withdrawing, I found the Vessel so rotted with the former *Escharoticks*, that, tho' a seemingly sufficient Crust had been made outwardly, yet the Blood more faintly, & *sine Saltu*, still trickled through, so that intending now if possible to make sure Work, I took out the second Iron, and bringing the Heat to right Temper, by rubbing it on the Floor, clap'd its Point into the former Orifice, and pushing it up still farther higher to destroy the Artery, made a Kind of *Sulcus* an Inch high, turning it round as before, and drawing it out, when I perceived only some few Drops distilling through the same.

The Work thus, as I had Hopes, compleated, and my Patient with admirable Courage undergoing the Operation, I thrust in a Tent only of dry Lint into the cauterised Furrow, dressing the outside as a Burn with Lenients, or a Pledge of *Basilicon* with equal Part *Liniment. Arcaei*, and a common Plaister; then rolling up the Arm gently, she was put into her Bed.

So soon as I had finish'd, Mr. *Boon* came in, and acquainted me, he had made Provision for her being taken into the House next Day, which was done accordingly, but might now have been as well omitted, the Trouble being by this last Application ended : For at four Days End he told me they had taken off my Dressings, approved my Proceedings, and soon after heal'd the Breach as another Burn, without the least Disturbance from the Artery.

In few Days after she came to return me her Thanks, and to acknowledge, as the Surgeons attending in the House had done, that the saving both her Limb and Life, was owing to the fiery Trial she had undergone at my last dressing her. I was indeed well pleas'd at her Cure, which was the more satisfactory, and herein remarkable, that notwithstanding the Scituation of the Wound among so many Tendons, in Danger as well from the *Escharoticks*, as the hot Iron thrust up so high among them, she had a perfect good Motion as well of the Wrist as Fingers, neither Contraction nor Stiffness ensuing thereupon.

Some Time after, calling again to see me, she told me a pleasant Tale of a Passage happening under a short Sickness, she was just recover'd from, in which her Mistress sending for Dr. *P——r*. when he came to the Bed-side, and going to examine her *Pulse* on the wounded Wrist, perceiving not the least Stroak of the Artery under the Skin of the *Carpus*, as she lay slumbering, he return'd hastily out of the Room where she lay, and told her Mistress her Servant was out of any human Possibility of Recovery : Upon which the Family running hastily up waken'd her, and wondring at the Drs. *Prognostic*,

tic, before he was got out of the House, desir'd he would return, for she was now awake, and very hearty as they believ'd : Upon asking her how she found her self, and going again to feel that Wrist, she told him what had hapned, and that she never could find a *Pulse* there since I had burnt her : When taking up the other, he perceiv'd he had made a rash Judgment, for want of farther Enquiry.

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Much about this Time, a Corn-Chandler in the same Neighbourhood, coming home with a large Evening's Draught, and taking the Bottom of a Cheshire-Cheese, cut Boat-fashion, into his Left-hand, with a Knife Spear-pointed in his Right, as he was digging into the same, and laying great Stress thereon, the Point slipt through the outer Coat, and entring between the little Finger, and that next to it, open'd the Artery : Whence bleeding a long Time, notwithstanding the Family Applications, making at first flight of the Wound ; I was call'd up to him, and thrusting up a Tent of Lint hard rolled, and dipt in *Colcothar*, with other dry Dressings over, Compress also in *Oxycrate*, rolled up the same : When after a Week's Time, and the exactest *Regimen*, like that prescrib'd before, it burst out afresh, and so successively for three Weeks, three several Times : Till the Hand being much tumefied, and in danger of *Gangrene*, the Wound still crude, and the Digestion spoil'd by the repeated *Catheretics*, the Habit also *Cacochymical*, made the Accident how trivial soever in its first Appearance, formidable in the Issue.

I would have tied up the Vessel, and was once about passing my Needle for that End ; but was opposed by the Patient, who would neither admit

mit of that nor the Cautery ; thinking a slight Cut as he call'd it, stood not in Need of such violent Remedies. Upon which at the last bursting, I sent to Mr *Blundel* and Mr. *Petty*. When we came to remove the Tent, which he himself had kept close in with his Fingers of the other Hand, till we were all met, removing the Compression and extracting of the same, the Blood as usual, leapt out by Jerks, altho' the Stream was small ; and coming to examine the Part more narrowly, we found the Artery so rotten, that laying aside the Thoughts of the *Ligature*, we took a little Button Cautery, I desired my Friend Mr. *Petty* to bring with him, which was made for clapping into the *Alveoli*, to restrain a *Hæmorrhage* from the Extraction of a Tooth ; which heating twice, and turning it about as often, after entring the same as high as was thought necessary, the Remnant of the bleeding Artery was so burnt up, that before the *Eschar* came away, the Extremity was incarn'd ; and dressing up with Lenients, as the Wound digested, the Symptoms of Tumour and Inflammation about the Hand, went off, and gave us no farther Disturbance.

And here I should have shut up my Discourse of Wounds, had not an Accident often attending some of those Parts, put me in Mind of enlarging a little farther thereon.

It is observ'd then oftentimes, that in those, where an Artery has been punctur'd in its Coats, after Agglutination of the Wound in the Skin above ; yet by Reason of the constant Motion of the said Coats of the Artery, the Wound therein does not consolidate, whence the Blood diffusing it self into the Interstices of the Parts about, raiseth a *Tumour*.

The

Of Aneurisma.

The like Accident may arise from the Point of a Lancet, when attempting to open the *Basilic* Vein, the subjacent Artery is unluckily touched: Also from Blows or Falls, from the *Impetus* or violent Motion of the Blood it self, promoted by the Debility or Laxity of its Vessels. And hence most of our Authors have distinguish'd the Disease call'd *Aneurisma* into *legitimate* and *spurious*, or *true* and *false*; the one arising inwardly from the Tunics of the Vessel expanded and dilated in certain Places; the other from a Wound or Rupture outwards through the same, in which the extravasated Blood is lodg'd in the Interspaces of the Membranes round about, or near adjoining.

The *former* is denied by later Writers, particularly I think by Mr. *Wiseman*, who will allow, if I mistake not, of no *Aneurism*, but what is owing to a Violation or Breach made in both Coats of the *arterial Canal*, but by no Means of one in the inward, the outward remaining whole.

Whether this be so, may be disputable; but that a Tumour *Aneurismatic* may arise from the Dilatation of both, is scarcely to be call'd in Question.

That the Coats of the *Veins* admit of being thus enlarged, we have daily Instances in the *varicous Tumours* of these Parts, especially some of those depending, as about the Legs and Thighs, the *Abdomen* of pregnant Women, also on the Verge of the *Anus* of those afflicted with the *Hæmorrhoides*: Farther more in *icteric*, *hydropic*, and *hypochondriacal* People, or where the Liver is grown *schirrous*, and the Blood upon this Occasion denied its wonted Passage to the *Vena Porta*; at which Times the Veins of the *Mesentery* grow *varicous*,

varicous, and are found dilated, in some Places to that Degree, that as *Morton* relates from *Guarmonius*, they were seen in a certain *Hypochondriac*, to represent *Intestines* rather than *Veins*. Now I cannot see why a *Varix* in some Degree may not be taken for a like Disease in the *Vein*, as the *Aneurism* in the *Artery*: And if the former, by a slow and equal Current, or by Stagnation of the Fluid from some Pressure or Rub in the Way, when there is nothing but the mere *Pondus* of the Blood, is notwithstanding capable of such Enlargment: What Wonder, if we find the latter in some more lax or yielding Part of the *Canal*, much more distended by the Stream accidentally from some *Polypus*, or the like, meeting an Obstruction to its Career, where the Force is vastly greater, or the Impulse heightened by the *Vibration* which is incessant.

I once observ'd the *Subclavian* distended to almost the Thickness of a Child's Wrist, in which was contain'd such a Body of near the same Size, when *Nature*, which is more remarkably at these Times *Conservatrix sui*, had thicken'd the inclosing Tunics to a quadruple Proportion: What was observable in the Patient living, was a continual Palpitation, so loud as to be heard perfectly at some Yard's Distance from the Bed-side; the Strok so strong withal against the Breastbone, as to throw off a four Pound Weight laid level thereon, with a Rebound, as it were, upon the Part, which it had beat out all round, by its surprising Thumps against the same.

An Example of like Nature the learned *Riverius* gives us in his *fourth Century of Observations* in a Citizen of *Montpelier*, where the great Artery from the Heart to the *Clavicle*, was found so enlarged by an *Aneurism* there formed, as to admit

admit a Hen's Egg into its Cavity; the Coats of the same being so thicken'd, as to appear in a Manner *cartilaginous*.

All I would infer hence is, that the Tumour we call *Aneurisma*, may be contain'd within the arterial Tunics, or that the same are capable of such Distention, as to give Being to such like Tumours; and that consequently we may still retain the Antient's Division thereof into *genuine* and *spurious*, or *true* and *false*: Many of the former being chiefly troublesome by their Jar or Pulsation, and which for many Years, to the End of the Patient's Life, may happen no other Way to incommode him, if seated especially in the smaller Vessels, or remote from the large Trunks of the same; whereas in the latter, from the Blood extravasate all round, a much larger Tumour is formed, subject not only with the other, to fatal *Hæmorrhage*, but to *Gangrene* also and *Mortification*, if not to be restrain'd, and thereby such Accidents prevented.

Somewhat of like Kind, we see daily befalls the *Vein*, where so long as the Blood is included within the Coats of the Vessel, as in the *Varices* before refer'd to; it will lye long Time, even during Life, without other Inconvenience than its Knottiness, and Pain from the Stretch of the nervous Coat: Yet being thrown out of its Channels; as in the *Ecchymosis* or large Extravasations, it must quickly be discharged, if incapable of being return'd into the Parts it flow'd out of, lest it putrify or corrupt those it now lies on, which it is sooner apt to do than the other Extravasation, I mean the *arterial*, where the Blood is more spirituous, its Heat stronger, and the Motion of the Artery just by, contributing to prevent its *Grumescency*: But then we are also to observe this Difference, that as the *venal* Rup-

ture

ture is frequently cured by opening the Part, and discharging the extravasated Blood; so that, of the *Arterial* is not to be attempted at all in many Places, and in none, without mature Advice, and an *Apparatus* ready at Hand, viz. a *Ligature* for tying up the Vessel, or a hot Iron to destroy it, with whatever may be farther requisite for the Work; and to secure your Patient's Life, at these Times often in Danger. And this leads me in as few Words, as I can, to give you the *Diagnosics* and *Prognosics* hereof, which some Writers take Notice of with the *Tumours*, but I designedly in this Place among the *Wounds* of the *Blood-vessels*.

The *Diagnostic*, at least the prime, and which *Diagnostic* Physicians call *Pathognomonic* Sign of this Disease, is a perceptible Pulsation in some Part of the Swelling, more manifest, if the Artery lie near adjoining, the Tumour small and circumscribed, as in that from Dilatation, where the Vibration to be felt on the Outside exactly keeps Time with the *Rythm* of the Vessel, giving Rise to the same; but if the Swelling be large, or great Quantity of Blood is thrown out into the Parts, as in that from some Rupture in the Coats, there may be less, if any Pulse to be observed, the Artery lying too deep or remote to be thus apprehended. Wherefore there is no Distemper incident to the Body, or indeed any Case offering in Chyrurgic Practice, that requires greater Sagacity in the Artist rightly to distinguish than this before us: Since the Mistake carries along with it oftentimes a sudden and inevitable Death, either treating it with *Suppuratives* mistaken for a common *Abscess*, which increaseth the Malady; or after opening either by Caustic or *Incision*, when instead of the expected *Matter*, the
Blood

bursts out impetuously and destroys the Patient.

Prognostic.

Whenever therefore [which may serve as a Guide for your *Prognostic*] any Tumour is presented to you which arose suddenly, as after Blood-letting or other Puncture, where there is Room to suspect an Artery in the Way, or altho' from an inward Cause, yet if seated near the larger Branches of these Vessels, as on the Temples, the Sides of the Neck or Wind-pipe, the Inside of the Arm or Cubit, the Thigh, Leg, or other Part of the Body, where the Swelling is of the same Colour with the Skin, giving back upon the Pressure of the Finger, but instantly returning; in these Cases I say, tho' the *Pulsation* is not manifest, which yet it is most commonly, be not too positive in delivering your Opinion nor rash in the Undertaking.

Cure.

As to the *Cure*, the *Aneurism* at least which I take the Liberty to call so, from Dilatation of the Coats of the Vessels, of long standing, and thereby confirm'd, is incapable thereof, and not to be attempted; but the other, or that arising from a Rupture through the same inwards, or a Puncture outwards, unless situate out of the Reach of Compression, as in the Neck, and Throat, is capable oftentimes of *palliating* and sometimes of a *real Cure*.

The former is by restraining the farther Effusion, and driving back the Blood extravasate, [where it may be admitted] into its Channels: And this is to be attempted by proper restrictive Medicines, applied to the Part, assisted with *Compress* and suitable *Bandage*.

To this End, Compresses fitted to the Swelling, of fine Linen folded, are first wrung out of *Oxycrate* and the Whites of Eggs, then sprinkled over with *Farina volatilis*, *Bolus verus*

Sang. Drac. or the Potter's Clay softned with Vinegar of Roses, recommended by *Scultetus*, being spread on Cloth, and applied Plaister-wise, are laid on, and bound fast with a Roller: But these growing hard and dry, requiring often to be renewed, and the Bandage to be loosned, I should prefer some stiptic Plaister, such as the Defensative compounded *ex Empl. Diapalm. Bolo vero Sang. Drac. Ol. & Aceto Ros.* and instead of the Roller, if for the Wrist or Arm, the laced Glove or Arm-piece: For the Leg or Thigh, the strait Stocking or Trowse, which bind more sure and equal than the others; besides these, where the Accident is recent, and the Tumour small, a particular Compress upon the Rupture in the Vessel is farther requisite; as the half of a Bean, Nutshel, or Plumb-stone, the Convex inwards, which press particularly on the Part streighter than may be allowable all round the rest, for Fear of a *Gangrene* hazarded thereby.

The Author we last took Notice of, hath described an Instrument for this particular Purpose of Compressing the bleeding Artery: Acquainting us farther, that at *Padua*, he knew an expert *Arteriotomist*, who, in violent Head-achs, did often by the Physician's Direction, open the *carpal* Artery, and by the Help of such Instrument, agglutinated the Wound, without any ill Symptom supervening; a Precedent, I think scarce warrantable for common Practice; nor yet if practised, more reconcilable, as a Remedy, to the Law of Circulation for a Complaint of the Head, than the more safe and equally serviceable Operation of *Venæ-section*.

For Want of this Instrument, he tells us he has sometimes used a Peach-stone upon a Compress against the Wound; and in *Switzerland*, he says,

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they bind down the convex Part of half a Walnut-shell.

And thus much for the palliative Cure, which by good Management of the Surgeon, and the Patient's regular Conformity to his and the Physician's Prescriptions, for tempering the Heat and Acrimony of the Blood, frequent emptying of the Vessels to abate their Plenitude, and make Way for a Return, with the like *Regimen* as in *Hæmorrhages* has been already observed, oftentimes succeeds so far.

But this not availing, or not practicable, as where there is great Extravasation, and the Flux has already broke its Boundaries, by which the Patient is in imminent Danger of his Life; the *real* or true Cure is to be attempted, which consists in laying open the Limb, till you discover the Breach in the bleeding Artery, which having found, you are carefully to separate, so as that you can come to pass your Needle threaded for the Work under the same; first above the Rupture therein, which having tied close, and cut off the Ends of your Thread, you are, in like Manner, at half an Inch, or an Inch Distance, to make another Ligature below; and either, according to some, to divide the Vessel betwixt these Ligatures; or, as others, to leave them undivided.

The Operation thus far perform'd, and the Wound cleansed of the Blood, the Ends of your Thread secur'd on the Outside, you are to hasten the Digestion and Incarnation as in other Wounds of the fleshy Parts; the Ligatures after some Days falling off themselves, leaving the Ends of the Vessel now cover'd with Flesh, and out of Danger, the Blood taking a Passage through other side-way communicating Branches, when it finds the direct one thus block'd up. In

In performing this Operation, it is necessary, you apply the *Torniket* to restrain the Bleeding for the Time, that would hinder your Work, as for *Amputation*; when having laid the Vessel bare, and cleared away the grumous and other Extravasation, you may slacken, so as may direct you to the Place of the Rupture, which being found by the spurting out of the Blood, you again straiten, till you have made your binding, and finish'd the same.

Barbet calls this Operation, *Periculosa, dolorifica, laboriosa, nec non exiguae saepe Utilitatis*, and declares he would sooner dismember the Patient, than put the same in Practice.

It must truly be acknowledged a Task neither void of Difficulty nor yet of Danger, requiring more Time than cutting off the Limb: But if the Odds be not greater against the Patient's Life by the former than the latter, as I think it is not in many of these Cases; yet has it this farther unspeakable Advantage of retrieving not only the Limb, but as good a Use also thereof, as before, of which he must be deprived in the other. I was once, and only once, concern'd in the Operation below the *Cubit*, with Mr. *Babington*, upon the like Accident, as hapned at the four *Swans* already just before described, which was attended with good Success.

Severinus informs us that the *crural* Artery it self, and that too very near the Groin, being open'd and torn by a Musket-Ball; Incision was made of the Muscles, in order to come at the Vessel, and tie up the same, and that having open'd the Part, *Seignor Trullus*, who was the Operator, took out above six Pound of grumous Blood; yet the Work happily succeeded, and the Patient perfectly recover'd his Limb in six Weeks Time,

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Time, having bled prodigiously for thirty Days before, and was reduced exceeding low, as well thereby, as the putrid Fever and other Symptoms attending: A History truly remarkable, and worthy of Record to future Ages.

And here I would give the young Practitioner to understand, that a sound Judgment and a steady Hand, are absolutely requir'd at these Times, as well as in all other Operations of like Nature; for there is somewhat more Trouble than in ransacking a Bundle, to find a Piece of Pack-thread, which having found, to tie two other smaller on any Part thereof, at an Inch or two's Distance, then cutting off the Ends, or dividing the bound Thread in the midst of the two Tyes. Excuse me, Gentlemen, you know, doubtless, what I mean by this rude *Simily*; that the Undertaker ought to be a dextrous Knives-man, or *Anatomist*, both *Myotomist*, and *Angiotomist*; not only expert in muscular Dissection; but in the Situation or Course of the Blood-vessels also, the Study and Practice whereof I so earnestly pressed upon you in my last Section: So that I shall now shut up this perhaps over-lengthen'd one, with the following short Advice, *viz.* That in the Cure of all Wounds whatever, or wheresoever situate, you are not only to consider your Patient's Temperament and Way of Living, but whether the same are not complicated with some other Distemper, as the *Scurvy*, *Dropsy*, *French Pox*, &c. without Regard to which in a Physical Administration to lend you Assistance betwixt Whiles, you will find oftentimes, some seeming inconsiderable Accident will foil your Labour and utmost Endeavours, rendring the best of your *Topics* ineffectual.

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